# THE FARMERS' CABINET,

AND

# AMERICAN HERD-BOOK,

DEVOTED TO

AGRICULTURE, HORTICULTURE, AND RURAL AND DOMESTIC AFFAIRS.

"The Productions of the Earth will always be in proportion to the culture bestowed upon it."

Vol. VI.—No. 2.] 9th mo. (September,) 15th. 1841. [Whole No. 80.

KIMBER & SHARPLESS,
PROPRIETORS AND PUBLISHERS,
No. 50 North Fourth Street,
PHILADELPHIA.

Price one dollar per year.—For conditions see last page.


For the Farmers' Cabinet.

## Farming a "Miserable Business."

Mr. Editor,—The first article of the last No. of the Cabinet reminds me of a very interesting account of a conversation in the way of dialogue, by Professor Colman, from which it would appear that farming ought to be "cracked up," if, with such management on such a farm, a family of eleven persons can be supported, without coming out at the little end of the horn at the *end of the year*. The truth is, farmers *ought* to debit themselves with all that they consume, charging market price for every article; for why should the expenses of a family be drawn from the *land* without credit being given, any more than from a business in *trade*—which no one thinks of. By inserting the following, you will be doing a service to the community generally, and oblige An Old Subscriber.

*F.* Ah, farming's a miserable business.

*A.* But why? What is the estimated value of your farm?

Four thousand dollars.

Is it increasing in value?

Yes, by its favourable location, and by every improvement that is made upon it.

Do you get from it all the produce which it can be made to yield?

No, not one-third. It consists of one hundred and twenty acres. At least fifty acres of it are in wood, and a considerable portion in pasture. Besides that, I have several acres of peat bog, which might be redeemed and brought into English grasses.

What is the value of the wood land?

We supply our family with fuel, and besides this, the growth of the wood and hoop-poles which we obtain from it, pays a larger interest on the current value of the land, so that we consider this as one of the most profitable parts of the farm.

Have you done any thing to improve your pasture lands?

No—I suppose I ought to. I tried one hundred weight of plaster spread upon a part of it, and the effects were visible as far as the land could be seen, but then after that plaster rose half a dollar on a ton, and I thought I could not get any more. Then the huckleberry bushes and the sweet fern, and the rushes and alders have come in, so that I cannot keep so much stock as I could formerly.

Have you attempted any improvement upon your bog meadows?

No,—sometimes I have thought I would. My neighbour, J. B., has redeemed eight or ten acres, and now gets two tons and a half of hay to the acre, herd's-grass and clover and red-top of the best quality, where formerly he got scarcely any thing; but then it cost twenty or twenty-five dollars an acre to drain and manure it; and he will have to top-dress it at least once in five years, or it will never hold out. Then, too, he has put on at least half a bushel of grass-seed to the acre; and grass-seed, which I used to buy for twelve cents a pound, or two dollars and a half per bushel, is now twenty cents a pound, and herd's-grass three dollars per bushel. Then, too, labour is so high, I cannot afford to hire.

Have you plenty of manure?

No—that is a great want. I have a bog hole where I suppose I could get two hundred loads a year, but then I should have to go more than a mile for it, and it is wet work. I have not any of the advantages which the farmers who live within six or seven miles of Boston have, and can go in and buy a load of good dung whenever they want.

Do you know what these farmers have to pay for manure in Boston?

Why yes. I have been told they have to give sometimes from three to five dollars a cord at the stables. Sometimes our tavern-keeper sells a few loads, but he asks five dollars a cord.

Have you a barn cellar?

No; I have often thought it would be a very good thing, and my barn is well situated for one; but then it would cost, besides what work I should do with my own team, full fifty dollars to make one.

Do you keep cows?

Yes, I keep some just to eat up our coarse

fodder; but our women folks do not like dairy work, so we buy our butter and sell our milk to the milk man for about eleven cents a gallon.

Do you keep swine?

Only one or two for our own pork. We do not have any skimmed or butter-milk for them. Besides, there is no great profit in fattening hogs. They will not much more than pay for what they eat. I know they will make a large quantity of manure, but then you must cast in a great deal of stuff into their pens or else they can't make any. But come, I must show you a sow I have got; she is only fifteen months old, and I sold her pigs for more than forty dollars. I suppose I shall make her weigh four hundred in the fall.

Do you raise your own grain and potatoes?

Not all. I raise about three acres of corn and about as much rye, and about six hundred bushels of potatoes. We sell hay and buy Genesee flour. We have tried wheat, but sometimes it blasted, and it don't make white flour, and our women folks say that they cannot make handsome pie-crust or white bread with it.

How many have you in your family?

I have a wife and eight children, and my father lives with me.

Have you any trade?

No, I have nothing but my farm.

Does your farm support your family and pay your labour?

Why yes; I have nothing else, except a little interest that comes from some money which I received for the sale of wood from off the farm some time ago, which came to about five hundred dollars, and which I put out at interest. We sell enough produce from the farm to pay our hired labour, which costs about a hundred dollars a year, and our store bills and taxes.

We have very much abridged this conversation, and we shall leave it without farther comment. But here is a husbandman on a farm valued at four thousand dollars, not producing more than one-third of what it might be made to produce, yet supporting a family of eleven persons, and paying all expenses, excepting the labour and superintendence of one man, and the farm gradually increasing in value by every expenditure, however small, for its improvement; this man, too, not working half the time, and he and his family living in the enjoyment of all the luxuries which you can reasonably ask. Let such a man, if he will, take his two hundred and forty dollars income, and labour no more hours than he does in the country, and go into Boston and try to support his family there. The end of the year would make him ashamed to complain of his present condition. His whole money income of two hundred and forty dollars would scarcely pay for his fuel, his taxes, and the rent of a ten-footer. What an evil it is that our farmers do not know their blessings!—*N. Eng. Far.*

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For the Farmers' Cabinet.

## Preservation of Plants in Pots.

Mr. Editor,—I have a desire to acquaint you with the mode by which I succeeded the last winter in preserving my plants, while many of my neighbours lost all theirs, some by *over* and some by *under* nursing. It is customary, we know, to place the plants either in the garret or the cellar as a place of protection during the winter, but experience has proved that these extremes are equally unsuitable for the purpose; so also is the room in which we usually reside, as well as the kitchen, these being too uniformly warm, while an out-house is too cold. Now, taking these things into consideration, and being desirous to save some very favourite plants in pots the last winter, I determined to try how the atmosphere of the bed-room—without fire—would suit them, and I found *that* to be exactly the place, for I saved every plant, and they came out in the spring perfectly strong and healthy. The way I did was this:

I first fastened down the *upper* sashes of the windows, and then placed shelves around the walls within two feet of the ceiling, and upon them I ranged the plants, which were thus kept in a pretty even temperature, especially by night; and when the windows and doors were thrown open during the day for the purpose of airing the room, the plants were *above* the current of air, which passed either into or out of the room, *that* never reaching to the ceiling, as all draught was cut off by fastening down the upper sashes. And here they stood, fresh and green, without heat sufficient to force forward vegetation, or cold to freeze the earth in the pots during the whole of the winter. It was necessary to exercise caution in the supply of moisture—this being given only in fine, open weather, in the morning, and in very small quantity, sometimes sprinkling the leaves slightly—and in the severest part of the winter I never had a leaf frozen. I should add, I took the precaution, when the weather was at the very coldest, to set each pot containing the plant into an empty one rather larger than it, filling the interspace with dry sawdust, which so effectually protected the earth from frost, even when the thermometer was very low, that not a plant ever suffered in the least; being careful, however, to remove these casings so soon as all expectation of such very severe cold had passed away, or premature

vegetation might have been encouraged. I frequently satisfied myself of the correctness of the mode which I had adopted, by testing by means of the thermometer the temperature of the atmosphere at the bottom of the room near the floor, and around the pots near the ceiling, and the difference was quite sufficient to convince me that the reasoning was just. My plants are now very strong and healthy, and I attribute their thrift to the circumstance of covering the surface of the mould in the pots with a small quantity of well-rotted manure—thus practising the principle of top-dressing, for the idea of which I am indebted to the pages of the Cabinet.

A thought has this moment struck me;—we see how often the plants of a green-house, or those that have been preserved through the winter, when put out in the summer on frames or otherwise, are found to suffer through the heat of the sun and the drying influence of a scorching wind; and how much better they do if they are removed to the border and the pot be plunged into it; but as this is often not convenient or desirable, would it not be an excellent substitute to place each pot into a casing—another or outside pot, which might be painted white, to prevent the absorption of heat, even under a mid-day sun? And this, I conceive, would not be all the advantage to be derived from the plan proposed, for we know that the nights soon grow cold, and long before the season for removing the plants to the green-house, how often must they be chilled by the night air after a scorching day's sun, penetrating through the thin covering of a single pot—the thickness about the fourth of an inch only—between the cold atmosphere and their tenderest roots. Now all these vicissitudes might be guarded against, merely by placing the pot containing the plant into another—a common size larger—which would not be troublesome, expensive, or unsightly. I mean immediately to adopt it. FLORA.

August 20, 1841.

## Protection against Drought.

IN tillage, the best protection against drought that can be conveniently practised to a great extent, is frequent stirring the earth, so as to keep it light and loose. In this way, the earth at the surface is in many small particles, which serve as a non-conductor of moisture, and retain it below, where the roots obtain a supply.

On the contrary, when the earth is hard and compact, the moisture is readily conducted off through it, even to a great depth in a very dry time. As an illustration, if one end of a long bar of iron be put into a fire, the heat will readily pass to the other end; but if that bar be cut into pieces of one inch or less in length, and laid along in the manner of a bar, the pieces would touch in some places, and in others there would be a small space between them; and on heating one end, the other would not be affected, as the heat would not pass but a small space through the pieces.

Again, we will suppose that a fire of intense heat be made on a block of iron that is four feet square, and ten feet high, the body of iron would fast become heated downward, even to the bottom. Now, if that iron should be cut or broken into fine pieces, and a body of iron formed of these pieces, of the same size as the block, and a fire of a like degree of heat made thereon, the heat would work down slowly, after penetrating a small distance through the many particles, and the air intervening between them. We give this as the theory. It is the practice, as in all other things, that we rely on as the foundation of true science.

There is, in a dry time, a great quantity of moisture in the earth, that is continually rising and passing off in evaporation; and if this evaporation can be prevented, in a great measure, by a non-conductor of moisture at the surface, the plants will suffer comparatively but little. This is abundantly shown in practice.

Those who have not witnessed from experiments and observation the advantages of fine loose earth on the surface, as a protection of plants against drought, would not be likely to suppose its effect so great as it is, though the theory is plausible and reasonable. Corn and other vegetables that have been well hoed in extremely dry times, have flourished well, while some parts left for experiment were nearly destroyed by drought.

We noticed the powerful effects of this protection last season. We cultivated a few acres, mostly dry land, and the drought was severe indeed. Where the soil was frequently stirred and kept light and loose on the top, there was a constant moisture a short distance from the top; but where the earth remained unmoved, it dried to a great depth.

A narrow strip, running across the piece, was left for turnips, and remained unploughed. On this the soil became dry below the usual depth of ploughing, and the weeds were almost dead for want of moisture, while at the side, weeds of the same kind in the edge of the ploughed ground, were fresh and vigorous, and the soil was dry only a few inches on the surface.

Where some grain was sowed, the earth was dry down six or seven inches; while by the side of it, where the soil was often stirred, it was dried down only three or four inches. And in this latter case, the moist earth had a good degree of moisture, while the former contained but little.—*Yankee Far.*

For the Farmers' Cabinet.

## Seasoning of Wood.

Mr. Editor,—I have felt much interest in the papers which have appeared in the Cabinet on the most proper time for cutting timber, and the mode of seasoning it by means of fire, by which the sap is extracted, leaving nothing to ferment and become food for worms; and can readily believe that there is truth in the view which is there taken. All admit that if the sap could be extracted, the timber would be rendered exceedingly more durable, and it would appear that to cut it while the sap is flowing and submit it to the action of fire, is an effectual way of accomplishing the end, as well as a cheap and easy mode of performing the operation. In the number of the Cabinet for May, we were promised an account of experiments about to be made on this subject; we should be glad to become acquainted with the results. In the meantime, there is a very interesting chapter in "Tredgold's Elementary Principles of Carpentry," on the seasoning of timber, which would, it is thought, be valuable, were you to lay it before your readers; it is therefore copied and offered to your acceptance.

"*Langton's method of Seasoning Timber by the direct extraction of the sap.*—As green wood consists of woody fibre saturated with the fluid called the natural sap of the tree, it is obvious that a method of separating this sap without injury to the woody fibre, is one of the most important discoveries that has been made in the management of timber. From three to five years is, in the usual method, necessary to render green wood fit for use; and for so long, not only is the interest of the capital employed to purchase it lost to the consumer, but also the manufacturer must have a larger capital to conduct his business than with a quicker mode of drying. In shipbuilding, the disadvantages of the slow progress of seasoning by the natural air of the atmosphere are most evident. When green wood is placed in the receiver of an air-pump, as the air is exhausted by the pump, the sap, being no longer confined by the atmospheric pressure, separates from the wood; and if heat be applied so as to convert this sap into vapour, as fast as it arrives at the surface of the wood, and the means of condensing the vapour be provided, the whole of the sap will soon be extracted from the wood; and this is the nature of Mr. Langton's process. In practice he employs upright cylinders of iron to contain the wood, into which the pieces are lowered by a crane, and raised again when the operation is finished. Steam is used to produce a partial vacuum in the cylinders afer the wood is in and the covers closed, and heat is applied by means of a water bath surrounding the cylinders. The vapour of the sap is conveyed away and condensed by another apparatus. The wood seasoned in this manner rather exceeds the usual density of the same kind equally dry, and loses about the same weight as in seasoning by the common process, with somewhat more shrinkage. The time when the process is over is easily known by the liquid ceasing to collect in the condensing part of the apparatus; and in regard to expense, it appears that to season, or rather to extract the whole of the sap from green wood, will require from 8 to 12 weeks; the timber so prepared, being fit for any purpose, as it is not that degree of dryness called *seasoning*, but the whole of the sap is extracted."

In regard to the time required to season, much must depend on the size of the timber submitted to the operation. Dr. Watson found that a small piece of a large ash cut from the middle of the tree after it had been felled six weeks, lost, merely by exposure to the atmosphere, nearly one-fifth part of its weight in seven days; and on a subsequent trial, after five months, it had lost no more of its weight, showing that it had become perfectly dry in the short space of seven days. A cubic foot of oak which, fifteen days after felling weighed 58.74 lbs., weighed, after 3 months' exposure, 56.18 lbs.,—the same, when perfectly dry, weighed 39.27. J. D.

## Profitable Farming.

The question is often asked, How can farming be made profitable? I answer, by liberal manuring, deep and thorough ploughing, and clean culture. I will venture to affirm, without fear of contradiction, that no instance can be cited, where a farmer who has manured his grounds highly, made a judicious use of the plough, and cultivated with care, has failed to receive an ample remuneration for the amount invested; nay more, that he has not received a greater advance upon his outlay, than the average profit derived from any other business. One great difficulty is, that most farmers seem not to be aware of the fact, that the greater the outlay, to a reasonable extent, when skilfully applied, the greater will be the profit: they therefore manure sparingly, plough shallow, and the consequence is, get poorly paid for their labour. This has raised a prejudice and given a disrelish to the business of farming, especially among those who are in the habit and are desirous of realizing something more from their occupation than a naked return of the amount expended.

The farmer who is so sparing of his manure that he can get but thirty bushels of corn from an acre, gets barely enough to pay him for the expense of cultivation, and in ad-

dition to this, by the ordinary method of ploughing, his field, at each successive rotation, is deteriorating, his crops becoming less, and in a few years he finds he must abandon his exhausted and worn-out fields to seek a subsistence for himself and family in some other business, or in some other region, where the hand of man has been less wasteful of the bounties of nature.

Instead, then, of his scanty manuring of ten cart-loads to the acre, which will give him but thirty bushels of corn, let him apply thirty loads. This additional twenty loads, at the usual price of manure in this part of the country, will cost him thirty dollars. But he now, instead of thirty bushels of corn, gets sixty bushels, and the increased quantity of stover will more than pay for the excess of labour required in cultivating and harvesting the large crop over that of the small one. He has then added thirty bushels of corn to his crop by means of the twenty loads of manure, which at the usual price of one dollar per bushel, pays him in the first crop for his extra outlay. His acre of land is laid to grass after taking off the corn, and the effect of his twenty loads of additional manuring, will be to give him, at the lowest estimate, three additional tons of hay in the first three years of mowing it, worth fifteen dollars a ton, standing in the field. Now look at the result. His thirty dollars expended for extra manuring was paid for in the first year's crop, and at the end of three years more, he will have received forty-five dollars profit on his outlay of thirty dollars, and in addition to this, his land is improved, and in much better condition for a second rotation. There is no delusion in this. It is a practical result, of the reality of which any farmer may satisfy himself, who will take the trouble to make the experiment.

From no item of outlays can the farmer derive so ample, or so certain a profit, as from his expenditures for manure to a certain extent. This has been most strikingly verified by some of our West Cambridge farmers. It is not uncommon among some of the farmers in that town, to put on their grounds one hundred dollars' worth of manure to the acre; and in more instances than one, the gross sales of produce from ten acres under the plough have amounted to five thousand dollars in one season. This is the result of high manuring and the judicious cultivation of a soil, too, which is exceedingly poor and sandy. —*E. Phinney.*

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If you would be remembered by posterity with gratitude, transplant each year a few trees to the spot on which you live, and attend carefully to their cultivation.

For the Farmers' Cabinet.

## Rotation of Crops.

The importance of a rotation of crops is indeed a subject of vast moment. De Condolle, the celebrated botanist, has discovered and verified by satisfactory experiment, that of the nutriment which all plants receive and digest, they exude an inconsumable or innutritive portion by their roots, and that this excrementitious matter unfits or poisons the soil for a second crop of the same kind, until it is either consumed or neutralized by cultivation; this very matter, however, proving nutritious to other and different kinds of plants. And from thence he argues that one crop of grain should not be succeeded by another of the same description — wheat after wheat, oats after oats, &c.; nor, reasoning from analogy, ought wheat to follow oats, as they are too nearly allied in their natures, and are supposed to feed on the same pabulum, both also coveting the same description of soil — that which is cool and rather heavy. The fact above-stated fully accounts for the failure of the clover crop, if sown often on the same land. The fibrous-rooted plants always succeed best after those that are tap-rooted; hence arises the incalculably profitable system of the turnip husbandry in England, by which they are enabled to raise crops of grain of the finest quality and in almost double quantity; at the same time carrying forward the improvement of the soil to an almost indefinite extent, to which might be added, the means of supporting double the quantity of stock of all kinds, by introducing the different varieties of the roots, green crops for soiling forming a link in a system by which the farmer is enabled to pay in rent, tithe, and taxes, a sum which in almost every other country would be found absolutely insupportable.

It is *a change of crops* that we want—and by it, I sincerely believe that we should be relieved from one half the evils which now assail us in the shape of blight, smut, rust, mildew, root-rot, studs, and a dozen others, whose very names would then be forgotten—a *healthy crop* being oftentimes proof against this host of pestilences; and such a crop generally springs from a well-cultivated, unexhausted soil, not, however, made rich by the immediate application of large quantities of rank manure; for, valuable as these may be in forcing on green crops to be mown for hay or fodder, I am convinced they are of great injury to the production of all kinds of grain. J. Saunders.

York County.

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Labour and capital judiciously applied to the improvement of agriculture, are a no less sure investment than in any other business.

For the Farmers' Cabinet.

## Shade Trees.

Mr. Editor,—In a late conversation with Mr. John Vaughan, I took occasion to bring to his notice the highly graphic letter of Mr. Solon Robinson, at page 18 of the last number of the Cabinet, "On planting Shade Trees," as also your note in explanation; when he made the following observations, which ought, I think, to be recorded. He said:

"When my father planted the trees in Independence Square, he was careful to place the variety of the American elm in the outer row, that their wide-spreading branches might form a more ample shade in the adjoining streets; but the double row of trees leading to the entrance of the State-House, were a species of the English elm, that their high and upright branches might form arches or "cloistered boughs" above the walk, leading from the gate of the square to the door of the building. As they grew up, however, they were found to be affected with a worm or caterpillar—said to have come originally from India—and which annually visited them, by which they were at length so much injured, that it was found necessary to remove them, their bark being undermined from bottom to top, and coming off in long strips: with them the evil ceased, and then the rows of trees which are now growing there, were planted. Now, it was said and believed, that this insect came from India; but hearing, some time after, that a solitary tree in the country was every year affected in the same way, I took occasion to go and examine it, when I found it to be the same description of tree, attacked by the same description of insect and precisely in the same manner! proving that, whatever it was, it had been bred on the spot, and had never been to India at all.

"Ah, I once knew a very old man that planted every year a number of trees 'for posterity,' who, on being asked by some young people why he was so foolish, knowing that he would never live to enjoy their fruit or shade, replied, I am planting for myself, but if I die they will not be lost, for *posterity* will then enjoy them. There is one tree, however, that ought never to have been planted in our streets; it is the Lombardy Poplar, a worthless, unsightly tree, except in one particular spot—around the lone dwelling in the country, where their tall spires, pointing heavenward, act the part of ministering angels to the weary and benighted traveller—they then form, with the curling smoke from a chimney, a picture, perfectly in keeping with our most holy conceptions!"

I would add, no doubt the class of men whom Mr. Robinson has in view, are mainly actuated by self-interested motives, but there is a much larger class amongst us, who, blessed be God! are "planting" in many ways for the good of posterity—for the *pure love of it*—and who, like our heavenly Master, and according to his blessed book, are going about doing good, hoping for nothing again. And I must be permitted to believe, that to inculcate the pure doctrines of the gospel amongst the inhabitants of the prairies, would be far more likely to induce to the planting of trees, than all the laws of the Persians and of the Medes combined. I consider *that* as the one thing needful in situations so strikingly delineated by your correspondent; and if in such, the spirit of Christianity were "planted" at the time of the erection of the log-hut, we should soon see the habitation shaded with trees, and the desert blossoming like the—honeysuckle! Whenever I indulge in the airy vision of "settling a prairie," I always find myself commencing by creating, just in the centre of it, a place of worship, to which you ascend by three steps—desirous of preserving even the language of scripture, and literally, going *up* to worship on the Sabbath or holiday; while the building serves the purpose of teaching, during the remainder of the week, that pure system of faith and practice, which will secure every comfort in this life, and the hope of that which is to come.

And there is no man living who has indulged more in the "luxury of doing good," than the venerable personage of whom mention is made at the commencement of this article; who has followed closely in the steps of his excellent Father, and whose path through a very long life has been strown with many a flower and planted with many a fair tree, the shade and fruit and fragrance of which will be enjoyed by thousands, after he shall have been removed to that blessed country where the light of the sun and the moon will never more be required—"for there shall be no night there."

All, all must come
To the cold tomb!
Only the actions of the Just,
Smell sweet and blossom in the dust!

J. R.

Philad., Aug. 4, 1841.

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## Signs of a Poor Farmer.

He grazes his mowing land late in the spring. Some of his cows are much past their prime. He neglects to keep the dung and ground from the sills of his building. He sows and plants his land till it is exhausted, before he thinks of manuring. He keeps too much stock, and many of them are unruly. He has a place for nothing, and nothing in its place. If he wants a chisel or a hammer, he cannot find it. He seldom does any thing in stormy weather, or in an evening. You will

often, perhaps, hear of his being in the bar-room, talking of hard times. Although he has been on a piece of land twenty years, ask him for grafted apples, and he will tell you he could not raise them, for he never had any luck. His indolence and carelessness subject him to many accidents. He loses cider for want of a hoop. His plough breaks in his hurry to get in his seed in season, because it was not housed; and in harvest, when he is at work on a distant part of his farm, the hogs break into his garden, for want of a small repair in his fence. He always feels in a hurry, yet in his busiest day he will stop and talk till he has wearied your patience. He is seldom neat in his person, and generally late at public worship. His children are late at school, and their books are torn and dirty. He has no enterprise, and is sure to have no money, or if he must have it, makes great sacrifices to raise it; and as he is slack in his payments, and buys altogether on credit, he purchases every thing at a dear rate. You will see the smoke come out of his chimney long after day-light in winter. His horse-stable is not daily cleansed, nor his horse curried. Boards, shingles, and clapboards, are to be seen off his buildings, month after month, without being replaced, and his windows are full of rags. He feeds his hogs and horses with whole grain. If the lambs die, or the wool comes off his sheep, he does not think it is for want of care or food. He is generally a great borrower, and seldom returns the thing borrowed. He is a poor husband, a poor father, a poor neighbour, a poor citizen, and a poor Christian.—*Balt. Far.*

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For the Farmers' Cabinet.

## Muck Gathering.

Every farmer should now, and for a month to come, be busily employed in raising muck from mud-holes, wherever that can be obtained. A friend, with whom I spent a pleasant day the last week, showed me a grand mine of this description situated below his cattle-yard, from whence it receives all its superflux, and into which he tumbles any animal that might chance to die during the winter; and there I saw the bones of an old horse, white as ivory, after the flesh had been decomposed, in a receptacle containing, perhaps, 200 loads of capital fat muck, intended as spring dressing for next year's clovers. The plan he pursued is this: as soon as the stock leaves the winter yard, he turns the water which runs from thence, in another direction to a second muck-hole, and by the autumn, the superabundant water is evaporated, so as to leave the contents in a proper state to be dug out by the shovel; and at this time he has two men employed in the operation of mining "old gold" from a bank of deposit, that at all times is ready to pay up both principal and interest, at a premium of cent per cent. The mud is only thrown on the bank of the hole for the present, where it lies until it is sufficiently dry to be thrown together into a snug heap, mixing at the same time a liberal allowance of lime; and from thence it will be carried on to the clover in the spring, and spread like ashes, being quite equal to them as a top-dressing. As soon as the hole is emptied, the current from the yard is again directed into it, and the work of replenishment goes on; the clear water flowing off by a flood-gate placed near the top of the bank, after leaving its sediment behind, together with what fortuitous articles may have chanced to drop into it during the winter, whether in the shape of horse, cow, sheep, hog, cat or dog. My friend calculates that he makes more profit from this muck-hole than from any ten or fifteen acres on his farm, taking the value of the manure and the saving of cartage into the estimate.

And now also is the time for all those who are so situated, to cut and carry the green reeds from the banks of rivers and ponds into the fold yard, after ploughing up the bottom a foot or more in depth in the centre, so to lie to absorb the moisture of the dung during winter; when it should be removed with the manure in the spring, and after lying to ferment, it should then be turned up and carefully mixed with lime; and thus 500 loads could be added to the resources of the farm with comparatively little labour and much profit. I know at the present moment a bed of reeds six or seven feet in height, with other aquatic plants, lilies, &c., which would give any quantity of first-rate green vegetables, sufficient to lay the foundation of the barn-yard to the depth of many feet in thickness, and upon which the stock might be wintered to an extent of profit, compared to which probably, the rent of the farm would be but as a *modicum*;—but the owner seems quite unaware of the treasure which is within his reach, the value of which would be enhanced, from the circumstance of its containing no seeds of weeds that would vegetate on an upland soil. Thus, in many ways has the intelligent cultivator an opportunity to add to his resources, and prevent the necessity of a recurrence to the burning of pine knots to save candles.

Z.

August 8, 1841.

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It should be a fixed principle, never to suffer the soil to deteriorate; for, as it costs as much to cultivate a soil producing only half a crop as a full one, it is perfectly clear that it is the interest of the cultivator to keep his land always in good heart.—*Beatty.*

For the Farmers' Cabinet.

## Root Culture.

Mr. Editor,—I have noticed with regret from various quarters, a flagging in relation to the cultivation of roots for the use of stock; some suppose corn a more profitable crop; but as I have succeeded tolerably well in the cultivation and feeding of roots, I have drawn a different conclusion, and apprehend that if any have been discouraged, it was for the want of better experience. I will, therefore, venture a few hints, for the consideration of those, who may be disposed to try their success the next year. Select a piece of greensward or clover-lay, suitable for raising corn — (beets, parsneps and carrots, will bear a more tenacious soil than turnips) — spread upon it at the rate of 20 loads of coarse manure to the acre in the fall, then turn it under as deep as you can plough, lapping the furrows at an angle of about 45 degrees. The next thing, prepare a compost sufficient for 20 loads to the acre, let it be well stirred and decomposed by the 1st of May following. As soon as the ground is in a suitable state in the spring, harrow it well lengthwise of the furrows, and again in about a week crosswise, if it will bear it without disturbing the clods; otherwise, harrow it diagonally until a mellow tilth is raised and all the interstices are filled and the field smooth. About the 1st of May, spread your compost, 20 loads to the acre, and harrow it in; and about the 10th, in this latitude, lightly ridge the land about 3 feet apart—that is, back two furrows together—and plant your beets, carrots and parsneps, by hand. Four weeks after, keeping the ground well harrowed, prepare your ground in the same manner for ruta bagas, and sow them with a drill-harrow; — I have Merchant's, which cost me $3, and it works to a charm. Half a pound of good seed sows an acre quite thick enough. I use before sowing, a coarse iron rake drawn lightly over the top of the ridges lengthwise, to remove any small stones, turfs, &c. So soon as the roots can be seen distinctly, run a plough lightly between the rows, turning the furrows *from* the plants; and in a day or two, contract the cultivator or dressing-harrow and pass it once or twice between the rows, immediately following with the hoe to stir the ground and destroy every weed around the plants, thinning the thick clusters and transplanting where they are missing. A sprinkling of ashes is now beneficial and very necessary on the turnips, if the flies have made their appearance. In about a week after, run the cultivator through again, and if weeds are sprouting, follow again with the hoe and utterly destroy them. Indeed, the success of root-crops depends much on the early destruction of the weeds and thinning the plants. If they are all suffered to grow together until they nearly cover the ground, it will be more work to dress them once, than the whole cultivation of the crop, if taken in season and thoroughly managed, besides the loss of more than half the produce. I apprehend that this is the *very point* where persons generally are discouraged in cultivating roots. I estimate the expense of cultivating one acre of roots, judiciously, about equal to two acres of corn; and I will add, what I consider a good course to follow: plant the next year, early corn,— I use the Connecticut eight-rowed yellow, long-eared, 10 to 12 inches, small cob and very heavy; ripens two weeks earlier than the Jersey corn, and I have found it as productive. I have now on the ground succeeding roots, a promising crop, that may be fit to cut up by the first week in September, and then I shall sow Mediterranean wheat this fall, seeding with grass in the spring. Two hoed crops give a better chance to thoroughly pulverize the soil and destroy foul weeds. While gathering my roots last fall, I weighed and measured half a dozen white Silesian beets, the best I could select. The average weight of six was 19½ lbs. each, the average circumference 22¼ inches, the average length about 2 feet. I fed for some weeks, with these kind of beets, an animal I was fattening, and he put on flesh during the time beyond my expectation. My hogs have done well principally on roots in the winter, and cows have doubled their milk.

Yours, respectfully,

David L. Dodge.

Cedar Brook, Plainfield, N. J.,
August 20, 1841.

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## Lime in Planting Trees.

An English paper says, that a large plantation of trees, within the last few years, has been formed without the loss of a single tree, and this has been achieved by a simple process; it is merely putting a small quantity of lime in the hole with the plant. About four bushels of lime will suffice for an acre. It must be thoroughly mixed and incorporated with the mould before the plant is inserted. The effect of lime is to push on the growth of the plant in the first precarious state; new fibres begin to form and ramify from the tap-root, and not only is the safety insured, but its growth is advanced in double ratio. There existed at first an apprehension that liming the plant would force it prematurely, but this apprehension is proved to have been groundless.

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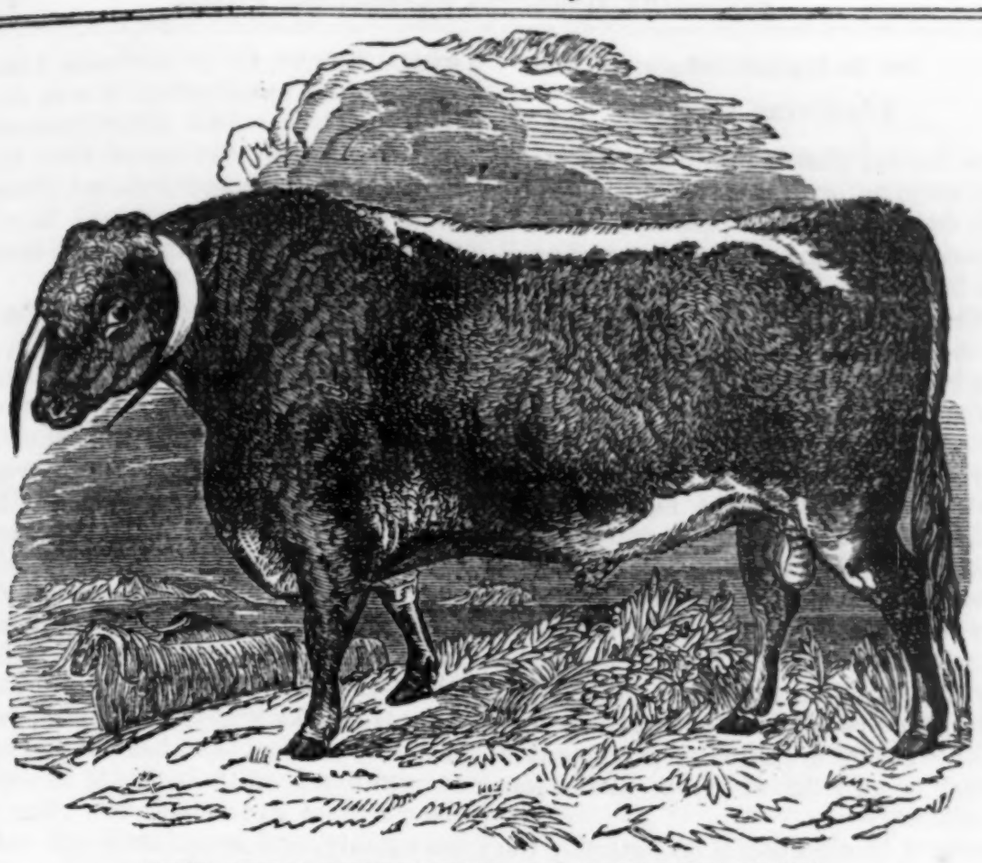
The highest cultivation and the greatest investment of capital and labour upon a given quantity of land, afford the greatest profit.



## THE NEW LEICESTER OR DISHLEY BULL.

*From Garrand's beautiful Illustrations of British Cattle.*

THIS noble animal was the property of Mr. Honeyburn, the nephew and successor of Bakewell, and may be considered a perfect representation of that peculiar breed of Long-horns, famous for their fine proportions, and a superior stock for the butcher. In Bakewell's opinion, everything depended upon *breed*,—the beauty and utility of the form, the quality of the flesh, the propensity to fatness—these four points demanded all his attention, and he wisely concluded, that the object might be better accomplished by uniting the superior branches of the same breed, than by any mixture of foreign ones, and on this new and judicious principle he started. Many years did not pass, before his stock was unrivalled for the roundness of its form, the smallness of its bone, and its aptitude to acquire external fat, while they were small consumers of food in proportion to their size; at the same time their qualities as milkers were very considerably lessened, and while the graziers could not but highly value the Dishley or New Leicester long-horn, the dairyman and small farmer held to the old breed—the Lancashires—as most useful to their purpose. But while this great improver was justly displeased with those gaunt, leggy and misshapen animals with which his vicinity abounded, which scarcely any length of time or quantity of food would thoroughly fatten, and patriotically determined upon raising a more sightly and profitable breed, he unfortunately became impelled by his zeal towards the opposite extreme; and having painfully and at much cost raised a variety of cattle, the great merit of which was to make *fat*, laid his disciples and successors under the necessity of substituting another breed that would make *lean*.

Mr. Young speaks of the gentleness with which Bakewell managed his cattle, remarking: "All his bulls stand to be examined in the field, a boy, walking by their side with a small stick three feet long, guiding them from one end of the farm to the other, and separating one bull from others, or from the cows, with the greatest ease." A curious description is given of Mr. Bakewell's hall, where the separate joints and peculiar points of each of the more celebrated individuals of his cattle were preserved in pickle, or hung up side by side, showing the thickness of the flesh and external fat on each, and the smallness of the offal; there were also skeletons of the different breeds, that they might be compared with each other, and the comparative difference marked. Some joints of beef, the relics of his favourite cow, OLD COMELY, the mother of the stock, and who was slaughtered when her existence had become burdensome to her, were very remarkable, the fat on the sirloin on the outside measuring four inches in thickness. But what is now become of the New Leicester long-horns! It was a bold and successful experiment, and answered for a while the most sanguine expectations, establishing a breed of cattle equalled by few, and excelled by none, save the Herefords; it enabled the long-horns to contend with the heaviest and best of the middle-horns, and improved the whole herd of long-horns, putting on flesh and fat on their most profitable points, and acquiring an earlier maturity: and, the process of improvement not being carried too far, the very dairy-cattle obtained a disposition to convert their aliment into milk, while milk was wanting, and after that, to use the same material for the accumulation of flesh and fat. The midland counties of England will always associate a feeling of respect and gratitude with the name of BAKEWELL, while the Irish breeders owe every thing to the New Leicester long-horns; and yet—although it will scarcely be credited—in 1833 there was not a single *Leicester* on the farm of Dishley, or a dozen of the pure breeds within the circuit of a dozen miles of it! it would seem as if a convulsion of nature had swept away the whole of this valuable breed! The fact is, they had been bred to that degree of refinement, that even the propagation of the breed was not always certain, and in addition to this, a powerful rival had appeared in the field—the improved *short-horns* began to occupy the banks of the Tees—presenting an equal aptitude to fatten, greater bulk, and earlier maturity: they are now, therefore, superseding them, and are fast driving all long-horns from the field.

For the Farmers' Cabinet.

### Lightning Rods.

Will the erection of lightning rods insure perfect security, and is it *certain* that the electric fluid will always pass down a rod in preference to making its way in another direction?

On the 1st July last, during a thunder-storm, the electric fluid struck the chimney of a sugar-house in Race street, Philadelphia, throwing a large portion of the bricks into the street: the effects of the stroke were sensibly felt in the neighbourhood, many people were prostrated, and one man never recovered from the shock, dying in consequence the next day. On repairing to the spot, it was found that a conducting rod, to appearance in perfect order, and leading far above the highest point of the building at the gable-end, and much higher than the chimney that had been demolished, had not served its purpose, although, by accurate measurement it was found to be situated within fifteen feet of the chimney.

"During a thunder-storm on Saturday the 21st of August, a flash of lightning descended from a cloud and struck the barn of Mr. S. Baab, near Pricetown, Pa., in which four men were standing, who escaped without material injury, after being knocked down and somewhat stunned. A conductor is attached to the barn, but it appeared that the lightning had descended *diagonally*, instead of passing *down* the rod from the top, and struck the rod about a foot from the ground, from which it glanced off, and *passing through a stone wall* from 12 to 16 inches thick, entered the wall on the other side of the wagon-shed, where it was spent, within a foot of those who were in the barn at the time."

The latter case reminds me of the account furnished by Mr. N. J. Sharpless, of Downingtown, page 105 of the Cabinet, vol. 5, in which it is said, one portion of the lightning left the rod at the surface of the ground and passed through a wall, perforating several holes, and killing two cows, which lay 25 feet distant and in opposite directions. Now, possibly, in this case, the lightning never passed *down* the rod at all, but *struck it diagonally*, as above-mentioned — not fulfilling its purpose in the regular manner, by *drawing* the electric fluid from the over-charged cloud and depositing it harmlessly in the negatively-charged ground; and certainly not without danger and injury to the building, or the animals lying 25 feet distant.

There is a remarkable case of destruction by lightning recorded in the English Philosophical Transactions. A broad-wheel wagon, while ascending a hill during a thunder-storm, was struck, and one or more of the horses, with, I believe, the driver, were killed; on a very minute examination, it was discovered that the electric fluid never descended from the cloud at all, but issued from the earth, immediately in contact with one of the wheels in its passage, leaving a round hole immediately under it, as though it had been forced up by the pressure of the wheel.

A friend informs me, during a late visit to Mr. Isaac Newton, Delaware county, Pa., he could not but remark the very exposed situation of his barn, which has, however, never yet been furnished with a conducting rod; but hitherto has escaped in a remarkable manner the stroke of the electric fluid. It stands very high, and has several very lofty Lombardy Poplar trees in its immediate vicinity, one of which, within about 50 feet of the barn, was struck and destroyed some time since; a sow and pigs which were lying at its foot at the time, sharing the same fate. Another tree, about 80 yards from the barn, and in nearly a direct line, had since been struck and destroyed, while during a late storm the electric fluid had struck two other trees in the vicinity, one in advance and another in the rear of his premises, the top of one of them being taken off and carried a considerable distance, the barn still standing unscathed, amidst all this "war of elements." Now, need it be considered necessary to erect a *conducting* rod to a building which has hitherto escaped injury with the lightning playing all around it, while so many instances have occurred where buildings carefully guarded have suffered?

Is the idea new to your readers, that the swallows always leave a barn before it is struck by lightning, or are they aware, that such a notion prevails in many parts of the country, and is implicitly relied upon as a fact? My friend remarked that the barn of Mr. Newton was thickly peopled with these useful and inoffensive little creatures.

Subscriber.

August 25, 1841.

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### Interesting Philosophical Facts.

Sound travels at the rate of 1142 feet per second in air, 4960 feet in water, 11,090 in cast iron, 17,000 in steel, 18,000 in glass, and from 4636 to 17,000 in wood.

Mercury freezes at 38 degrees below 0, Fahrenheit, and becomes a solid mass, malleable under the hammer.

The greatest height at which visible clouds ever exist, does not exceed ten miles.

Air is about 816 times lighter than water.

The pressure of the atmosphere upon every square foot of the earth, amounts to 2160 lbs. An ordinary sized man, supposing his surface to be 14 square feet, sustains the enormous pressure of 30,240 pounds.

Heat rarifies air to such an extent, that it may be made to occupy 5 or 600 times the space it did before.

The violence of the expansion of water when freezing, is sufficient to cleave a globe of copper of such thickness as to require a force of 28,000 pounds to produce the same effect.

During the conversion of ice into water, 140 degrees of heat are absorbed.

Water when converted into steam, increases in bulk 1800 times.

One hundred pounds of water of the Dead Sea, contains 45 pounds of salt.

The mean annual depth of rain that falls at the equator, is 96 inches.

Assuming the temperature of the interior of the earth to increase uniformly as we descend at the rate of 1 degree in 46 feet, at the depth of 60 miles it will amount to 480,000 degrees Fahrenheit—a degree of heat sufficient to fuse all known substances.

The explosive force of closely confined gunpowder is six and a half tons to the square inch.

Hail stones sometimes fall with a velocity of 113 feet in a second—rain, 34 feet in a second.

The greatest artificial cold ever produced is 91 degrees Fahrenheit.

Electricity moves with a greater velocity than light, which traverses 200,000 miles of space in a second of time.

Thunder can be heard at the distance of 30 miles.

Lightning can be seen by reflection at the distance of 200 miles.—*Selected.*

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For the Farmers' Cabinet.

## Handling.

How few of us ever think any thing about the *quality* of an animal, if it only please the eye, and how little did I myself know or care for this distinctive property until the perusal of the excellent article at page 363, Cabinet, vol. 5, by that spirited and first-rate judge of cattle, W. H. Sotham, to whom I consider we are indebted, more than to any other, for a fearless independence of character in his profession that will be of the first importance in our race for pre-eminence in the all-important science of stock-breeding. A man who has the *temerity*, at this time of day, to declare that his idea of name and colour of *any* cattle is, that it weighs but little in the scale of profit, is worthy a high stand as a judge, and I for one am content to bow to his decision, if *he will allow me the liberty which he claims for himself.* In the article above alluded to, Mr. Sotham has said, very properly, it is absurd for a man to form a correct idea of the quality of an animal by the eye alone—that is ascertained by the *hand*—and as the handling is the governing point in purchasing with all graziers and butchers, breeders also should look to that point. I find some excellent observations in Culley on this very important subject, although he admits that the *sensation* which is experienced on the touch of an animal is not to be described by words—it is only to be attained by *practice.* He says:

"We undoubtedly first judge by the sight, which, being pleased, we then bring the sense of feeling to its aid, and if this also approves, we then conclude that the animal suits our purpose, or is answerable to the idea that we have formed of it. A nice or good judge of cattle or sheep, with a slight touch of the finger upon the fattening points—the hips, rump, ribs, flank, breast, twist, shoulders, core, &c., will know in an instant whether the animal will make fat or not, and in what part he will make fattest. I have often wished that I could convey in language that idea or sensation we acquire by the touch or feel of our fingers, which enables us to form a judgment when we are handling an animal intended to be fattened, but I have as often found myself unequal to fulfil that wish. It is very easy to know where an animal is fattest that is already made fat, because we can feel a substance or quantity of fat upon all those parts which are denominated *fatting points;* but the difficulty is, to explain *how* we know or distinguish animals in a lean state which will make fat, and those which will not; or rather, which will make fat in such and such points or parts, and not in others, which a person of judgment and in practice can tell instantly—I say *in practice,* because I believe that the best judges out of practice are not able to judge with precision. We say, 'this beast *touches* nicely on the ribs, hips, &c.,' because we find a mellow, pleasant feel on those parts, but we do not say *soft,* because there are some of the same sort of animals which have a *soft, loose* handle, of which we do not approve, because, although soft and loose, they have not that *mellow* feel above-mentioned, for although they *both* handle loose and soft, yet we know that the *one* will make fat and the *other* will not; and in this lies the difficulty of the explanation;—we clearly find a particular kindliness or pleasantness in the feel of the one, much superior to the other, by which we immediately conclude that *this* will make fat, and the *other* not, and in this a person of judgment and *in practice,* is very seldom mistaken." P.

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It is calculated that if the harvests of a single year should fail, the whole of the human race must perish!

For the Farmers' Cabinet.

## Russia.

Sir,—I am tempted to send for insertion a short extract from a letter which I have just received from a dear friend, who sailed from this country some time ago, and has since made two voyages to Russia. The descriptive scenery, and the contrast between that country of eternal storms and this of almost perpetual sunshine, would, I conceive, be interesting to some of your readers. It is indeed necessary, in such a climate, for the government to provide artificial means to amuse the people, shut out as they are from the "illuminations" of the heavens for so great a portion of the year. Z.

"My dear Friend,—We have had cold and wet and blowing weather since May, and there is no prospect of change; to-morrow morning we sail again for Russia. While we are buffeting the angry waves of the North Sea and Baltic, they have, I find, fine weather across the Atlantic, and with you it must now (31st July) be warm. We did not see the sun for the space of six hours, during the whole of our last voyage.

"On my birth-day (13th July) we made up a party to visit Peterhoff, one of the imperial palaces on the banks of the Neva, and it was a trip which I shall never forget! By a 'coincidence,' the Empress has a birth-day on that day, and the illuminations at Peterhoff to celebrate it, may be ranked amongst the wonders of *this* world. If you should meet with any one who has been there on the occasion referred to, you may be able to obtain some faint picture of the scene,—my pen is too feeble. I heard a lovely song in London, 'Beautiful Venice!'—but oh! most beautiful Peterhoff!—its dense woods and magnificent avenues!—the glorious Turkish domes and minarets of burnished *gold* rising from the *green*, copper roofs of the palace! But 'tis no use to try; I could make you a model of it, showing every alley and fountain and reservoir, but it is impossible to satisfy myself or you by any description of which I am capable. I estimated the length of the framework at *forty miles*, at the average height of fifteen feet, and the lamps one foot apart: this calculation would give rather more than three millions of lamps, but there are more than four millions used. Each lamp contains at the least four ounces of tallow, with wax and turpentine, I think—perhaps nearer eight—say four, however, and the consumption of tallow is 450 tons! This helps one to form some idea of the extent of the thing; and although too much cannot be said of the *devices* of the framing, the stars, roses, &c., it is the almost interminable *length* of the burning wall that impresses the mind with *awe* as well as admiration. Oh! for time and talents, that you might share with me in the sensations I feel, whenever my thoughts revert to that night; some day, if I have the opportunity, you shall have the best descriptive plan in my power to make. There were at least 500,000 people parading in the gardens and park, chiefly Russians; but amongst them were to be seen the inhabitants of, perhaps, every country that has a place amongst nations. More than twenty bands of music were stationed in different parts of the grounds, and the Emperor and family, with their suite, in open carriages—very low, Irish jaunting cars—promenaded the whole of the gardens for several hours. The Emperor is the most magnificent person I ever beheld, the Grand Duke, his brother, being only inferior to *him*. Glorious sight, that! depend upon it. Truly yours, W. P."

"London, July 31, 1841."

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## Small Farms.

If it were not for the irrepressible desire of cultivating large fields, a system might be commenced, the benefits of which would soon be acknowledged by every farmer; a small amount of land well cultivated, will make a poor man thrive—a large tract neglected, will bring a wealthy man to poverty. If a man can obtain from one acre more than he usually obtains from five, the renovating system ought not to be delayed a day. When hay turns out less than half a ton to the acre, the labour and expense of getting the same will be double that of getting it when the produce is two tons. Fifty loads of manure to the acre will raise the produce of our hay land—worn out to the half-ton standard—up to the value of two tons for five years; and half that quantity for the succeeding five years, will keep the land up to that point. In the one case, the land produces *without* manure, five tons of hay; the expense of fencing, taking care of the land, and cutting and curing the hay, will amount to three-fourths of the value of the produce,—so if the hay be worth $12 a ton, the annual income of the land will be $15 only: but in the other case, seventy-five loads of manure will give twenty tons of hay per annum, worth $240, on land which on the exhausting system gave $60 only!—leaving, at the end of ten years, more than the difference of the value of the land itself, with the satisfaction to the proprietor—worth as much more—of witnessing *good crops*, where only wretched ones grew before.—*Selected.*

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What freights the barks of commerce in their liquid flight, threading every channel and whitening every port, but the products of *agriculture?*

For the Farmers' Cabinet.

## "The Science of Agriculture."

How strangely must this "figure of speech" sound in the ears of many of our friends who believe that the less of science is mixed up with agriculture, the better! But with all due deference to the prejudice of such persons, I must be permitted to believe that the more of true *science* is blended with any of our pursuits in life, the more rational will be the expectation of success in our undertakings, and the greater will be the reward of our labours in the end. It is indeed strange, that in all other occupations, science should be thought absolutely indispensable towards a successful prosecution of our affairs, while we find it deprecated on all sides the moment a man attempts to call for its aid in the pursuits of agriculture! But, is it possible to believe that such a state of things can exist much longer? If it is, then the education which it is become fashionable to extend to all in the same ratio, must be unsuitable to the youth who is destined to follow husbandry as the means of living, for much labour has been bestowed, to convince him of the necessity of thought, examination and comparison, in every event of life, and he will have especially to *forget* the lessons which he has been taught in philosophy, chemistry, and the arts generally, before he can sit down to practise the only *art* which is to sustain and support all other arts and sciences in the world!

I find in the Tenn. Sentinel a short article on this subject that is worth preserving in the Cabinet, and therefore copy it for your acceptance.

"The time is not distant, when the farmer's son will be *the man* amongst the well-educated of his day; for already has the spirit gone abroad, and the feelings of all are beginning to be enlisted in this honourable cause. No longer is the profession viewed as fit only for the poor and ignorant, but it claims that rank to which it is so justly entitled. Men of learning and talents have turned their attention to its investigation, without the least compunction of conscience, for having acted below their dignity: they have learnt that the occupation of the farmer — humble as it may hitherto have been considered — can call into action most of the powers of the mind, whatever may be the amount of his knowledge, and if useful, it can be brought to bear either directly or indirectly: and hence the erroneous opinion, *that farmers need not be educated*, is fast passing away; and ere long, popular sentiment will consign it to the shades of oblivion. No occupation is better calculated to call forth the learning of the man of science, and none, in which a man can engage with more honour, or to which more honour should be attached. We believe, that in time, instead of leaving the poor and the ignorant to fill the profession of agriculture, we shall see young men turning from practical institutions of learning, to that of the Plough, fired with a laudable spirit to gain honour and create wealth from their occupation. When such a state of things shall take place, agriculture will be added as another of the 'learned professions,' considered as honourable as any of them, and prove as profitable. Hills, that are now barren and neglected wastes, will be brought into active and profitable cultivation, waving with beautiful harvests and set thickly with the heavy-eared corn: then gladdening smiles of plenty will cheer our domestic circles, and the bounties of Providence be enjoyed with overflowing and grateful hearts." Zils.

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## Cows.

The management of cows, so as to keep them healthy and ensure a constant supply of pure milk, is not generally understood in cities, and if understood, is not practised. Strolling through Orange, near Grand street, says the Editor of the New York Star, our olfactory nerves were refreshed with the delightful odour of cows, something like new-mown hay, which perfumed the air, and that, too, in a part of the city not remarkable for its cleanliness. On pushing open the door of a wooden stable or pen, we found thirty fine cows each in a stall, and kept in the most wholesome manner. They were attended by grooms like horses, curried and kept clean daily, fed with warm swill three times in twenty-four hours, besides meal and hay. The swill is emptied into a vat and pumped into their troughs, and the free use of water coursing constantly through the stable, keeps the place sweet and clean. The consequence of this treatment is, that their hides are smooth and glossy, the animals lively, and their udders distended with milk, which is served to city customers. We think this mode preferable to turning cows loose on the common to pick up the stunted shrubbery, or walk the streets gathering the offals of the city.

The breath of these cows is considered good for consumptive persons; and although the stable has not an inviting exterior, yet the condition of the tenants is really admirable, and we should prefer milk from animals kept so carefully.

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I fully concur in the right and expedience of taking the lives of animals, but hold it to be gross inhumanity to inflict tortures upon them; I cannot therefore look upon the exposure to a lingering death by famine, storm and cold, but as a flagrant breach of humanity and justice.—*John Lawrence.*

To the Editor of the Farmers' Cabinet.

## Scientific Farming.

Sir,—I wish I could convey to your readers one half the pleasure in description which I experienced in reality on a visit which I paid the last week to Morris Longstreth, Esq., Valley Green, Whitemarsh. The farm —for it is a *farm*, and not a garden—consists of 150 acres of just the best part of a valley renowned for its fertility, with the Wissahicon flowing within a few yards of the house, over which the owner has thrown a substantial bridge leading to the larger portion of the property which rises gradually from the banks of the creek until it terminates in a lovely wood half a mile distant;—indeed the estate might very appropriately be named "The cream of the Valley." In the midst of a lawn and orchard of considerable extent and unequalled fertility, stands the house and magnificent farm-buildings — an establishment which requires to be seen before one half the luxurious comfort devised for its occupants, both within and without the house, can be properly appreciated; the preparations for the cattle and stock of all kinds during the winter *campaign*, however, forming with me the greater charm: even the *piggery* is so large and commodious, that it might become a source of envy to many a decent working-man's family. But the most striking feature is, the large space which has been allotted to the cattle in their stalls, with ample room for feeding at their heads, and a space behind sufficient for the passage of a horse and truck, by which the stalls are cleared and the dung conveyed to the outer yard with a tenth of the labour incurred by the use of the wheel-barrow; — indeed the whole establishment as a farm, exceeds all that I have elsewhere seen. There is, too, a garden of sweets, properly situated at the back of the house, leading to a peach orchard, the soil of which is devoted to the culture of the sugar beet; the present crop cannot be less than 30 tons an acre, the same land having carried such a crop the last year, and being destined for the same the next: but the owner has hit a happy thought, for, upon the last cleaning of the beets, he sowed the land with turnips—a mixture of the white and the ruta baga: the plants are now making fine progress, and will form a second crop of great luxuriance and much value, on the removal of the beets a month hence; and for this hint, the agricultural community will be highly indebted to him. The crop of grass around the house was such that the yield of hay is estimated at four tons per acre; this has been augmented to that point by the judicious system of top-dressing with compost, lime, &c., a business which is destined henceforth to demand very largely the farmers' attention; and its effects might here be witnessed to perfection. The crops of every kind are abundant; the wheat—the red chaff bearded —but which I should not hesitate to denominate a fine sample of Mediterranean—having proved, like that, fly and rust proof — shows the best sample that I have seen, this year of very general failure of that crop; the oats also are superior. But the corn is *riotous*, throwing out, in some cases, four full-sized ears from a joint; and even from the tassel itself, an *apology:* I send one stalk with six ears to the office for exhibition. The potatoes promise a very large crop, owing to the judicious selection by the owner, of the *late* Mercer—a plan worthy of adoption, in a climate oftentimes so *quick* as to prevent the crop from coming to perfection, especially if it be of an early variety.

I found them busily engaged ploughing for wheat, the land having been prepared and manured by this early season; but the ploughs were unfit for this all-important purpose, being too small and light; a well-cultivated, pulverized and heavily-dunged surface, requiring a long and heavy plough, so as to take up and turn over a thin furrow, and completely to bury the dung — and this deficiency will, I fear, be perceptible the next harvest, these light ploughs slipping out of their work, and leaving it half-performed.

The lower meadows are grazed by a herd of Devon cattle, the *master-spirit* being the bull Porter, which took the first premium at the last Exhibition of the Philadelphia Agricultural Society; one of his calves, out of a large Herefordshire cow, drawing the astonishing weight of 135 lbs. on the hay-scales on the day of his birth! There is a most remarkable bull-calf by Porter, from a very neat Devon heifer, which it is the intention of the owner to exhibit at the approaching meeting at the Rising Sun; it appears like *one bundle of muscle*, very neat, however, in the head and neck. I should name him Young *Shakspeare*, from the similarity which he bears to the wonderful animal of that name — the father of the Long-horns, as Hubback was of the Short-horns — as described in Youatt's work on British Cattle, where it is said, "at first sight it appears as if the tail, which stands forward, had been severed from the vertebræ by the chop of a cleaver, one of the vertebræ extracted, and the tail forced up, to make good the joint"—just so appears young Shakspeare. Those who were present at the West-Chester and Delaware Co.'s exhibition of last year, might have seen a calf from a half-bred short-horn cow, of the same singular formation.

There is a lime-stone quarry in the centre of the estate, with two kilns in operation, from

whence the lime can be taken to the farthest extremity, in comparatively an hour of time; and near them is a muck-hole, which has received the washings of the adjoining lands perhaps for ages, where a thousand loads of the richest mud may be raised, and the lime almost thrown upon it from the kilns, whereby a compost of incalculable value may be formed to any extent. The owner of this fine farm has adopted a mode of saving his rail-fence in a time of freshet—to which the river is subject, and by which the low meadows are periodically dressed to a considerable depth—that is new to me, and deserves mention. The posts are set fifteen feet apart, well spurred at the bottom and firmly fixed: then, the butt-ends of the rails are joined two together by a piece of chain fixed with staples, the middle link of each chain being fastened at the proper height, to the post, by a very strong staple; and so each pair are fixed to the posts at the proper heights. The small ends of these rails are then supported at *their* proper heights on the next post by plugs, which are driven in a *slanting* direction, on which they rest, so *slanting* that the rails will not slip from them by the pressure of cattle, but when operated upon by a flood, they rise on the top of the water and slip off, when they are prevented from passing down the stream by the chain and staple on the other post; so they lie at their length on the top of the water, permitting the ice; &c., to pass; after which they are replaced in an instant. Such a contrivance, I calculate, deserves a patent.

In surveying this noble establishment, I could see nothing wanting, but another opening to the quarry; the one now in use was, no doubt, made many years ago, when farmers were not permitted to read or think, or *theorize* upon their business; and so it has been driven into the *face* of the rock, instead of at the *back*, and many thousand hours of worse than useless labour must have been expended on boring and blasting a rock, which, if it had been approached from the back, would have opened with the bar, with, comparatively, the ease of opening the leaves of a book. But times are now changed, and any man, having a few years' lease in the quarry, would find it to his interest to drive a new opening at the back, and work from thence.

It must be observed, Mr. Longstreth was for many years successfully engaged in business in Philadelphia, and has demonstrated the fact, that *city farmers* need not be, what some of our old friends suppose them, unfitted for the pursuit of agriculture by their former engagements; — indeed it can readily be shown that many of our most intelligent and successful husbandmen have retired from the city to *grace* the country by their improvements and well-directed exertions, and I beg leave to recommend them to the notice of every intelligent and well-disposed agriculturist in the country. J. Mc.

August 28, 1841.

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### Improving Soils.

THERE is a point, beyond which soils cannot be permanently enriched without an improvement of their *constitutional organization*, which however may be done by supplying artificially those ingredients of a good soil of which they are deficient, such as clay, where sand is too predominant—carbonate of lime, where that is deficient, &c.; but without this change in the constitutional organization of the soil, we cannot hope to carry its fertility permanently, beyond what it had acquired in a state of nature. Soils which have been reduced merely by cultivation, where they have not been injured by washing rains, may be easily renovated, and this must be done by again supplying them with those ingredients of which they have been deprived by bad husbandry; this may be done in part by the application of manures, but we must also look to the atmosphere, whence we are to draw much of the necessary supply of vegetable food, and to this end, we should freely cultivate those crops which derive most of their food from it; and in soils adapted for its cultivation, red clover is most suitable for this purpose; it is by far the most convenient and the cheapest mode of renovating exhausted soils, not only supplying much vegetable matter to soils that have been much reduced, but it is admirably calculated to pulverize and reduce its component parts to a finely divided state, and thus to produce a condition favourable to a combination with those elementary principles which are furnished by the atmosphere, greatly increasing its capacity for absorbing moisture, care being taken to suffer as few weeds to ripen their seeds as possible; these, previous to the time of ripening their seeds, derive much of their nutriment from the atmosphere, and by destroying them before they seed, their product in vegetable matter goes to renovate that soil upon which they have been grown; and exhausting grain-crops should be sparingly cultivated until the soil is become perfectly renovated, and even then, they should bear only such a proportion to the green crops as the soil will bear without deterioration.—*Beatty.*

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AGRICULTURE is the true foundation of wealth; the sea renders her tribute, but the earth presents to skill and industry richer, and infinitely varied contributions; — money is not wealth.

To the Editor of the Farmers' Cabinet.

## The Russian Horse-Sandal.

Respected Friend,—A short time previous to the affixed date, I found in a periodical to which I have had access for many years, an article containing information of a somewhat interesting character; a transcript of which I deem worthy of insertion in the "Cabinet." It is as follows:—

"*Important to owners of Horses.*—A Frenchman by the name of Jony, now resident in Poland, has invented a new method of shoeing horses, for which the emperor has awarded him fifty thousand rubles, besides an exclusive patent. Jony covers the entire hoof with iron, and the base of his shoe, or, as it is called, sandal, is perfectly smooth. This method of his is being adopted in all parts of Russia. It requires neither nail nor screw; it is extremely cheap, and has the important characteristic of great lightness. Horses whose hoofs have been destroyed by bad shoeing, are, by the use of these "hippo-sandals," restored in a short time to their former state of efficiency, and may be used as soon as provided with them. Some horses have been brought to Jony's smithy which could scarcely limp along, and with their hoofs in so lamentable a state, that the common mode of shoeing could not have been applied to them; but after performing a slight operation, and putting a new sandal on their feet, they are sent back to their owners in a comparatively sound state, and are fit for work."

This newly-invented method of shoeing horses is certainly far in advance of the old system, or that which is now almost universally practised in America. The emperor must have conceived it to be an "onward" step of no minor importance in that branch of business, or he would not have rewarded the inventor so liberally; and I should be gratified to find it generally imitated by our Chester-county farmers, as well as the proprietors of that kind of stock without exception. The onward march of improvement has been peculiarly rapid within the last century, and as mankind have gradually diverged from a state of darkness to comparatively that of light, those good things which contribute towards forming the mass of human happiness, have increased in a proportionable ratio. May that spirit which incites us to rise, step by step, in the scale of knowledge, be ever promoted; for it is no detriment to any man's character to devote a portion of his time and talents towards the accomplishment of anything, by which he may hope to increase the happiness either of himself or others. I must confess, after thus speaking, that I have not in days past manifested even an ordinary zeal in the cause of agriculture, although from my infant years I have not been accustomed to view from my door scenes so limited and monotonous as is the case in large cities, but fields, forests and meadows, clothed, in their season, with verdure, and blooming with transcendent beauty, or covered with the white companion of winter. But I trust I shall be making some amends for my past conduct, by thus giving in my mite for the support of a paper which was issued principally for diffusing that knowledge which the husbandman is wont to possess; and to endeavour to stimulate the lethargic to more industry.

N. B. Cannot some of the contributors of the Cabinet furnish its readers with information respecting the cultivation of grape vines!—the kind of soil they require, &c.?

Thine, respectfully, Q. E. D.

Sadsbury, 8th mo. 6, 1841.

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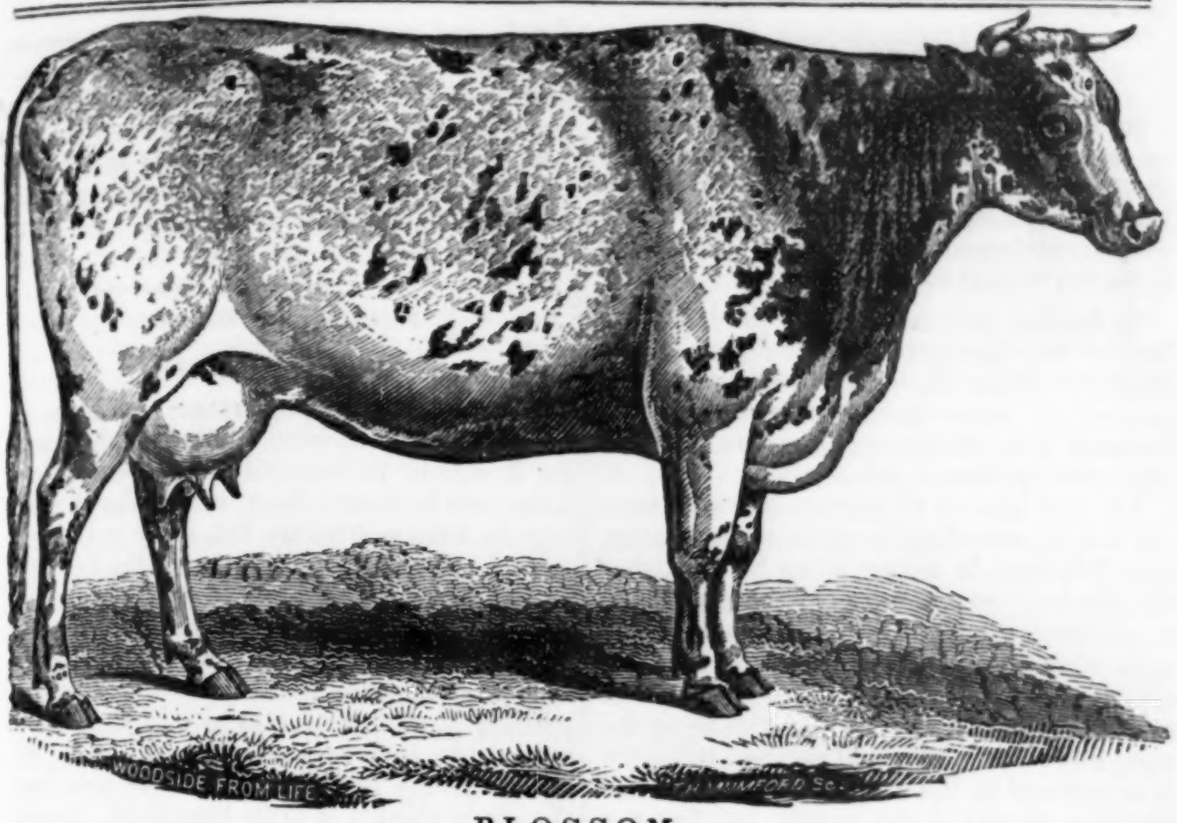
For the Farmers' Cabinet.

## Corn Sled.

The time being at hand for the removal of the Indian-corn crop from ground where it is to be followed by winter grain, a small farmer in Montgomery county, Pa., sends herewith a description of his corn sled, by which three hands and a horse removed with ease in three days his crop of corn last year from a field containing somewhat over three acres. It proved steady occupation for one hand to cut down while the other two were engaged in loading, hauling off, and shocking in an adjoining field the crop thus removed. Mine was Dutton corn, and proved a *good* crop, equal in yield to the crops usually raised in the neighbourhood, which are a mixture of the gored-seed and flint. It was planted in rows 4 feet apart, and in the rows 18 inches. I mention the kind of corn removed, that should any incline to use the sled, they may regulate the distance at which their poles, or shafts, are placed by the height of their corn, so that the ends of the stalks may not drag on the ground.

Mine is simply two cedar poles, 17 feet long, borne up and drawn precisely as shafts to a cart, while the other ends, dressed a little rounding on the under side, slide upon the ground; two sloats (which are but boards spiked on) are fixed across the poles to keep them at a proper distance apart, one of them at the distance of 4 feet from the end, the other at 10 feet, and having each of them two inch auger-holes bored, in which are fixed four pieces of laths as uprights to support the corn as it is piled on the sled,—these uprights or supports are the better for being set in with a slight inclination backward, that too much weight may not be thrown on the horse's back. An article so simple that any small farmer like himself can make it. L.

August 28, 1841.




## BLOSSOM.

### *The Property of Samuel Canby, Esq.*

Mr. Canby having politely furnished us with an account of the milking of his cow Blossom the present season, Mr. Woodside was induced to take a second portait of her, conscious that he had not been able to do her justice on a former occasion, when she was nearly off her milk. She is here given as a perfect likeness, both in the drawing and engraving; and our pages may now boast of faithful portraits of two of the most remarkable milking cows in the Union — Dairy Maid and Blossom. — Ed.

To the Editor of the Farmers' Cabinet.

Dear Sir, — At your request, I send you a statement of my Durham cow *Blossom*, her milking, &c. Unfortunately, her calving so late as she has, both last year and this, has thrown the trial into warm weather, which is against her, particularly in the yield of butter, as, for want of a spring-house, we have to keep our milk in a cellar. You will perceive there is a great gain over last year in the butter, more than the increase of milk would warrant, which I consider mainly attributable to the trial being made rather earlier in the season and the weather cooler at the time: you may remember I stated last year, that with cooler weather or a spring-house, I had no doubt there would have been several pounds more butter.

Last year, one month from calving, *Blossom* gave for the week 247½ quarts, being over 35 quarts per day, which made 13¼ lbs. well-worked butter. This summer, near two months after calving, she gave in one week 253½ quarts, being over 36 quarts per day, which yielded 17¼ lbs. of superior butter, which was well worked before weighing; the milk also was never measured until after the froth settled.

To satisfy myself as well as a number of my friends, I had intended to try her for a week in the 4th month from calving, but the intense heat and drought coming on, I considered it would not be doing her justice to give her a trial at that time; I had her milk measured on the 13th of July, (being in the 4th month from calving,) and the yield was as follows: —

Morning, 12½ quarts — Noon, 11½ do. — Evening, 11 do. — Total, 35 quarts.

Which quantity I have not a doubt she would average for a week, if the trial could be made earlier in the season; and if nothing occurs, I hope to prove it next year, as she will calve earlier in the spring. During her trials, I never make any difference in her keep; she is fed as usual, and runs in the same pasture with the other cows. We were as unsuccessful as usual in attempting to get her dry last winter, as she gave 16 quarts per day up to calving. She had her first calf in April, 1838, and her sixth on the 12th of last April, (having twins twice,) and has never been dry during that time. Very respectfully, Samuel Canby.

### *Blossom's Yield of Milk for one Week.*

| 1841. | Morn'g. | Noon. | Even'g. | Total. | 1841. | Morn'g. | Noon. | Even'g. | Total. |
|---|---|---|---|---|---|---|---|---|---|
| June 2d ..... | 13½ qts. | 12 qts. | 10½ qts. | 36 qts. | June 6th ..... | 13½ qts. | 12 qts. | 10½ qts. | 36 qts. |
| " 3d ..... | 13½ " | 12 " | 11 " | 36½ " | " 7th ..... | 13½ " | 12 " | 10½ " | 36 " |
| " 4th ..... | 13½ " | 12½ " | 10½ " | 36½ " | " 8th ..... | 13½ " | 12 " | 10½ " | 36 " |
| " 5th ..... | 13½ " | 12 " | 11 " | 36½ " | | | | | |
| Total ..... | | | | | | | | | 253½ " |

Being on an average, over 36 quarts per day.

Woodside, August 5, 1841.

For the Farmers' Cabinet.

## Moon Farming.

The readers of the Cabinet are indebted to a highly respected and much valued medical correspondent, for the following article on a subject which comes immediately within his province to determine. Will he accept our acknowledgments for a settlement of the question in the only rational mode. — Ed.

In looking over the pages of the last number of the Cabinet, I observed an article headed "Moon Farming," which contains several statements that are so erroneous that I cannot help taking exceptions to many of your correspondent's propositions.

1st. Let me say to your readers who have not had opportunities to examine the matter, that Z is entirely wrong, when he says, that "it has long been admitted by those best able to ascertain the fact," "that persons affected with madness are much more irritable and ferocious at the new and full moon than at any other times." So far from this being the case, allow me to say, that no such influence is recognized by the medical men who at this day have charge of the insane, and that our facts will not prove the existence of such influence. *If* patients are more noisy at such times, it is that the light of the moon and the shadows of clouds passing before it have some tendency to prevent sleep in those who happen to be particularly vigilant.

It is very true the term *lunacy* was adopted on account of this supposed lunar influence — but so false is its origin as applied to the insane, that most authors reject it entirely; and those who retain it, do so because it is a well-understood term, and not because it is either proper or expressive.

2d. As regards *cattle*, I must also be permitted to doubt some of the facts given in the paper—or, at least, that such striking *effects* were produced by the *cause* there given. Let any of my agricultural readers, by a very simple way, decide for themselves,—let them note the birth of every male and female calf that occurs during a whole year, and by referring back it will be easy to see whether the sex was dependent upon the state of the moon. So let them make a memorandum of the births of all the children in their neighbourhood, and by the same process they will ascertain whether Z's propositions are confirmed, — I feel confident they will not be. Bull calves and boy children are being born every day in the year, and probably will always continue to be, whether the moon is full or not.

3d. I am less able to judge of the causes of *rust* in wheat, but I feel confident some of your intelligent correspondents can give sounder reasons than those suggested by Z. Is it not generally the late wheat that suffers?—and is not the temperature then greater?—which might alone account for the disease in the late crop. But if the moon alone produced this effect, why should one field be lost when the adjoining one was saved? or why should we not every year lose crops, if the moon happened to be *wrong?* T.

August 27, 1841.

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For the Farmers' Cabinet.

## Potato Planting.

The time for the preparation of this grand crop is fast approaching. The land designed for it, should be covered thickly with long dung, and be turned deep, with a plough that lays its furrow perfectly flat, early in the autumn, care being taken to carry the furrows so that they may take off the winter rain, not permitting it to lie and chill the land. In the spring, the land is to be run back and carefully worked, when the manure will be found perfectly decomposed, and in a fit state to be thoroughly incorporated with the soil by means of the harrows, &c. The sets are then to be planted in drills twenty-two inches apart, and the sets themselves ten inches from each other; these are to be kept clean by flat hoeing, but by no means to be earthed up, that operation causing the formation of new shoots and the production of small tubers, delaying the ripening of the crop, deducting from the quantity, and deteriorating the quality to a great and ruinous extent. When the plants make their appearance in the spring, strew well-rotted compost on the rows, and let it remain as a top-dressing. By these means, the writer has grown 750 bushels per acre, while Gen. Barnum, of Vermont, is said to have grown from 1500 to 1800 bushels per acre, giving it as his opinion that in a good soil and with this mode of management, from 800 to 1000 bushels per acre might safely be calculated upon. The largest crops grown in Scotland are on land manured with long dung in the autumn and turned down, top-dressing the plants in the spring with composted manure. The largest crop of beets grown the present year, has been raised from precisely the same means; the top-dressing having operated in a remarkable manner in preventing the growth of weeds and protecting the crop from the effects of drought.

E. T.

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The rearing of a tree, the maturing of a vegetable, the production of a flower, the forming of a race of animals, with shapes and dispositions and qualities modified to a great extent according to your wishes, are, in themselves, miracles of a power delegated to man, and which an intelligent mind recognizes as divine.

For the Farmers' Cabinet.

## "Light and Darkness" — The Beet Culture.

Would our readers do us the favour to reconcile the following conflicting testimony? coming as it does from two of the most enlightened agriculturists and stock-breeders in the Union, we confess our inability to do so. We have no private interest to serve, and our desire has ever been, to follow truth wherever it may lead. We shall first give extracts from Mr. A. B. Allen's testimony in favour of the beet as food for all kinds of stock, and then introduce a letter in direct opposition to its culture—which we have just received from a very intelligent friend near West-Chester—without note or comment. — Ed.

Mr. Allen says: "I have not only my own taste for three years to prove that the sugar-beet raised about Buffalo is exceedingly sweet and nutritious, but can bring an hundred witnesses at any time to corroborate the assertion from their own experience. As food for stock, I know that even when fed raw to cows, they considerably add to the quantity and especially to the quality of the milk, making the butter as sweet and almost as yellow as that produced from fresh summer grass, keeping them, with the addition of hay alone, in the best possible order; the young stock on the same food keeping as fat and fine and glossy in the coat as when fed on summer pasture. But their most important use is as food for hogs, which they keep in as good flesh as I ever wish for breeders, while to the full-grown hogs, I give a stinted allowance, or they would get too fat for breeding: to young animals I allow a small addition of corn, and I never saw any thrive better or remain more contentedly — they fill themselves and lie in their straw as contented as puppies and whist as mice: and this is *experience*, and not mere *theory*."

Mr. B. of Chester county, writes: "I wish you would come out in the Cabinet in your might against the sugar-beet; depend upon it, they won't do — they have almost driven me mad this summer; I have had to neglect other necessary work to attend to them, and no crop at last! I have been running hard all summer to recover lost time, and shall not catch up till Christmas — being about two weeks behind-hand with everything. Five acres of beets require more attention than fifty acres of corn. It is customary here, as soon as the corn is planted, to repair fences — this was neglected to attend to the beets, and in consequence, my cows, sheep, and hogs, have been trespassing on my own and my neighbours' fields all summer: this is one loss. Next, my harvest commencement was delayed two weeks after the proper time, in order to give the abominable roots an extra hoeing — and this is a second loss. Again, my hired man, from stooping so much to plant and weed *the things*, has a constant headache, and probably a tendency to congestion of the brain — to the distress of himself and his young and dependent family—and this is a third evil. Fourth, since harvest, when all weeds and rubbish are generally cut and cleared away, I had to put the hands again at the beets, and stand in danger of being overrun with noxious weeds, thistles, St. John's wort, mulleins, briars, elders, and other rubbish; while the apparition of a *beet-root* haunts me day and night.

Now, according to your plan of keeping a Dr. and Cr. account for each crop, how will my beet crop stand:—

| | |
|---|---|
| Dr. Sugar-beet crop, say 2 acres. | |
| To damages from trespass on corn, potatoes and oats, from not repairing fences | $75 00 |
| " Two weeks behind-hand at harvest | 100 00 |
| " Congestion of brain, hired man, doctor's bill for four years, perhaps, loss of his time, and sufferings of a dependent family | 400 00 |
| " Propagation and spread of ten thousand millions of noxious weeds | 300 00 |
| " Actual cost, seed, labour, manure, cart and oxen, harvesting, &c. | 100 00 |
| | $975 00 |

Now, one of my neighbours says, after feeding them a whole winter, the only effect he observed on his cows was, for them to stand all day and water; according to this account, sugar-beet will be

Cr. By 3500 buckets of urine from cows .....

But D. K. Minor, of the Urate and Poudrette Factory, can estimate this item better than I can, and to him I leave to strike the balance."

B.

Chester County, Aug. 28, 1841.

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## Fences.

Little has been said in our agricultural journals on this all-important though oft-neglected subject. Bad fences have taught our cattle to become unruly or breachy, whereby our crops and those of our neighbours have been destroyed, after the labour and expense of raising them. But a greater evil even than this is yet to be named; — bad fences have often been the means of the most unhappy disputes and downright quarrels amongst neighbours, from which have flowed assaults, batteries, law-suits, and ill-will for life, *and after*—for the quarrel has often been entailed with the property on the son—amongst those who would otherwise have lived upon the most friendly terms all their days: even starvation and murder have found their way into a happy neighbourhood through a bad fence! I would therefore beg those who wish to live in peace and have something to live on, and who mean to sleep in peace and not be disturbed with the awful tidings, "the cattle are in the crops," to attend more to their fences.—*Maine Farmer.*

For the Farmers' Cabinet.

## House Lamb.

Mr. Editor,—In the county of Essex, England, and several of the adjoining counties, the practice of *making house lamb*, as it is called, for the London market, is carried on to a great extent and to much profit; and as there is neither secresy or difficulty relating to the business, there can be no good reason why the plan should not be adopted by us, for the supply of our cities at that season of the year when such a luxury would be sure to bring good prices and form a profitable return to the farmer.

The flock of the "lamb farmer" consists of about 200 ewes, kept as well as his pasture will admit of, and to which a small allowance of grain is furnished, peas being generally admitted the best for the purpose. To these ewes the rams are put in the beginning of June, and by the end of July most of them will have become impregnated, it being natural to this breed of sheep, the Dorsetshire, to go to their kind at a very early season; and this tendency on their parts becomes periodical, so that a better chance of early lambs is had from ewes thus accustomed to breeding, than from those untried. The lambs at a fortnight old are separated from their dams, and placed in small pens, two or three in each, in the *lamb house*, which is by some constructed with three compartments, one being divided into pens for the lambs of different ages, the other two communicating with this, and also with the farm-yard—the one to receive the dams of the lambs which are in the pens, the other to receive the dams of those lambs that have been sold off; and into these two divisions the ewes, as here distinguished, are respectively driven twice a day, when the dams of the lambs which have been sold off are brought out separately, and held, while the lambs suck them; they are then put away, and the lambs are let into the adjoining apartment to their own dams. While the lamb is very young, it is incapable of taking much milk, and the ewe will afford sufficient for its sustenance; but as it increases in strength, assistance becomes necessary, and sometimes cow milk is given, beginning with a quarter of a pint at a meal, and that twice a day, exclusive of the milk from the ewe: the regular practice being to divide the twenty-four hours by four equal periods, and to feed the lambs with ewe's milk and cow's milk alternately, at intervals of six hours. This attention is requisite to insure success, as well as the greatest cleanliness; the best lamb houses having board floors, covered thick with wheat straw always kept dry and fresh. At about six weeks old, they are fit for the butcher, and produce according to their value, sometimes as high as ten dollars a-piece, much depending upon the early state of the market. The ewes should be well supplied with roots during the time of suckling; and the foregoing method includes all the rules observed by the chief farmers in the lamb trade—a practice which has caused much wonder, and the success of which has been imputed to various mysteries, but, except in the contrivance of the barn, the whole is comprised in *regularity* and *cleanliness*.

J. G.

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For the Farmers' Cabinet.

## Ploughs and Ploughmen.

Sir,—I am glad to find that the committee of arrangement have determined on having a ploughing match at the approaching Exhibition of the Philadelphia Agricultural Society, to be held on the 29th and 30th of the present month. If I had the opportunity, I would urge upon them the expediency of excluding altogether from the trial, all speedy ploughing, awarding the premium to the best ploughman, without regard to the *speed* with which the work had been accomplished. Every one knows that our ploughmen can *beat all natur'* in this qualification, but it is as generally known and acknowledged, that the *quality* of the work is deplorably deficient; so that, with the best implements in the world, we are accustomed to do the worst work, because of our national propensity to *go ahead*, which in ploughing cannot be indulged in with impunity. Our furrows are taken too wide also, on the same go-ahead principle;—the best ploughing consists of the smallest furrows well laid, so that the ploughed land shall appear, comparatively, as smooth after the operation as after harrowing, with no large chasms to be left to the chance of being filled up by the harrows.

In the first edition of Tull's Husbandry, there is the drawing of a plough with four coulters, which is said to have worked easily and most effectually, by which a wide furrow was sub-divided into four widths before it was turned over, and on falling off the mould-plate it became perfectly pulverized without the use of the harrow, and yet it was placed in its proper position without the least difficulty—the remark being, "In proportion to the number of furrows and the pulverized state of the land, so will be the yield of the crop, both in quantity and quality." By these means, a furrow 16 inches in width could be reduced to four of 4 inches each, much time and labour being saved in the operation of after-harrowing, and a much better seed-bed provided for the crop. As the first edition of that valuable work is scarce and in few hands, perhaps it might be amusing and instructive to your readers if, in some future number of

the Cabinet, you were to give an engraving of what in those days was considered the *ne plus ultra* of ploughs, showing the great improvements that have since been made in their construction, especially in this land of *essences*, as it has very properly been termed. I have the book in my possession, and it is at your service for this purpose, whenever you may require it.

In the hope that the coming trial of ploughs and ploughmen will be creditable to the Society and beneficial in its results to the cause of *all causes*, I am, your subscriber,

T. W.

September 4, 1841.

We shall be obliged if T. W. will favour us with the loan of Tull's Husbandry; it can be left for us at the office, No. 50, north 4th street. — Ed.

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For the Farmers' Cabinet.

## The Corn Crop and its Enemies.

While the soil of this country is well adapted to the growth of all the grains which are usually cultivated in this latitude, still, that of Indian-corn may be styled *the crop* of this section; as it is believed by our farmers to be the most certain in its produce, and most profitable in its culture. Yet, within a few years it would seem as if even this crop was doomed to be less productive, by the depredations of certain insects not common in former years. The present season the corn crop with us has suffered perhaps more than in any previous year, by the ravages of the several insects which prey upon it: and if any of your many excellent correspondents have a knowledge of any preventive against the deadly enemies of this valuable crop, I beg they will make it public for the especial benefit of your subscribers in this district.

The first enemy of the corn crop is the "*grub worm*," which attacks the vegetable as soon as it shoots from the grain; but its depredations last only for a limited period, seeming to glut its appetite for the season, and cease its feeding in about ten days. The next and more fatal enemy, is the "*wire worm*," which, upon the departure of the "grub," (and sometimes in connection with it,) enters the tender plant inside the blades, cuts off the main stalk, and continues its ravages so long as there remains aught of sap (which seems to be its food) to support it. If the soil is rich, the corn will outgrow the workings of the "grub," and if not too severe, the strength of a good soil will sometimes produce good corn, even where the "wire worm" has existed; but, generally, these last leave the stalk with the main root entirely cut off, and the plant only receives its nourishment from the lateral roots, and in this state seldom produces full ears. Besides, corn thus attacked by the above-named insects, appears to be left the prey of yet another tribe of depredators, and the present year we find acres in our richest soils, at this very hour, suffering the gnawings of a *blue louse*, in the lateral roots, (the main root being entirely dead by the workings of the other enemies,) which in many instances prevents the stalk from even setting an ear.

The corn crop of Salem county, the present year, I think, may be set down at one-fourth less than the last, and chiefly from the above-stated causes. I am aware that some farmers think fall ploughing destructive to the eggs and larvæ of the insects, but it proves here no preventive against their depredations. Others think heavy liming destroys them. This last, I think it is conceded, quickens the soil, and is advantageous in shooting the plant beyond the worst effects of the worms; but whether it is destructive to these large armies of little insects, is doubtful.

I think this subject a good one for your scientific and "chemical" farmers to speculate upon. My own opinion is, that a thorough knowledge of chemistry will enable some practical agriculturist ere long to produce something poisonous to the animal, while it shall prove nourishing to vegetable life. G.

Salem, N. J., 8th mo. 30, 1841.

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## Soils.

The most productive soil is that which is so constituted as to maintain such a degree of moisture in very dry, and in very wet seasons, only to give a healthy supply of it to the plants. Such a soil gives to the plants the means of fixing their roots sufficiently deep to support them during the period of their growth, and allows them to ramify in every direction in search of nourishment; where they may easily abstract the elements of vegetable life, without being injured by a redundant or a deficient supply of moisture during any period of their growth. A constant supply of air and water is necessary to make and keep the soil permanently productive: when the soil is made and kept friable, it will have the power of absorbing, retaining and decomposing the water, the air, and the organic matter which may be in its composition, by insensible fermentation, and give up a constant supply of the results of this decomposition for the growth of plants, either at seed time, when they are merely vegetating—in summer, when they are growing with the greatest luxuriance—or in autumn, when they are ripening their seed for harvest.—*Selected.*

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All infallible receipts for the cure of diseases are infallible nonsense.

### Geology — Fossil Remains.

The remains of animals and vegetables in the rocks and earthy strata of the earth, are the true and only means of ascertaining its history and natural changes before the records of man. In all countries, on digging to certain depths and in mining, the remains of fishes, vegetables, quadrupeds and birds, are found in the soil or imbedded in the rocks, except in those of primitive antiquity. The general regularity with which those that are *marine* are laid at one level, and those which are products of *land* are laid at another, and the *alternations* of these marine and land products, lead to the conclusion that the sea has *repeatedly* covered the land for long periods of time, and that the land has at intermediate periods been dry; and what is very remarkable, the remains which are found, consist, and always at certain depths, of species of animals, vegetables, &c., not now in existence, and often of genera not *natural* to the present climate. The lowest rocks, it is inferred, were at one time the surface of the earth, and the seat of organic life; these appear to have been destroyed by some great revolutions, which brought new tribes of organized beings, while their *kinds* prove that the surface was covered with *water;* then, the subsequent appearance of amphibia, &c., prove the development of *dry land;* these then appear to have been swept away; and amongst later solid rocks the monstrous race of herbivorous quadrupeds and gigantic lacerta came into existence, when the earth seems to have acquired herbage for their subsistence; but how long this race kept possession cannot be guessed, but their great length of life is well known. The gypsum, &c., which now contains their remains, is covered with newer deposits abounding in *sea shells*, and *above* this stratum is found a new race of herbivorous animals of the genera of the elephant, rhinoceros, &c., and *above* them is the first loose soil intermixed with *marine* substances—proving second or third immersions of the sea; and *above this* lies the soil which the present race of animals enjoy! What may follow, and when and how, is a most momentous question.

The older secondary rocks contain *aquatic* plants and reeds; then above these, madrepores, corals, &c., all fixed where they lived; then *shell-fish;* and in strata above these, *fishes*, *bamboos*, and *ferns;* in a still higher stratum are more complicate shells and oviparous amphibia, as crocodiles, tortoises, and reptiles; and these are imbedded in the uppermost solid rocks of the oldest *secondary* formation; while in the *newest* solid rock formations, whales, seals, and birds, appear; and above these, *land* animals of enormous size, birds, and *fresh* water shells, *all in concrete rocks.* Above these again, in the lowest beds of loose soil and peat-bogs, elephants, elks, rhinoceroses of peculiar species, are found; and then, near the surface, are found the remains of the existing races; *human bones* having only been found amongst these.

Bats have been found in limestone; opossums in slate; guinea-pigs, rabbits, rats and beavers, in limestone; dogs, bears, foxes and wolves, in diluvial soils and caves; hyenas and tigers in limestone caves and marl; the teeth of horses, elephants, rhinoceroses, hyenas, bears, wolves, tigers, &c., are found in masses in diluvial soils; oxen in peat-bogs; deer and elks in peat-bogs and marl-pits; one of these, six feet high and nine feet long, was found in the Isle of Man, in marl.* Rhinoceroses are found in every part of Europe, and in the arctic circle; the hippopotamus is found in England, France, and Germany, — while mammoths, much larger than either, are found in Europe, America, and Siberia: one 16 feet high, at Abingdon, in England, another in Siberia, in ice, quite perfect in its flesh, skin, hair, and eyes, with a long mane and tail of stiff black bristles; and others have been found in Hudson's bay; and whales are found in Essex, in London clay, and in Bath limestone. Eight species of birds are found in gypsum near Paris; crocodiles are found in blue clay in Dorsetshire; lizards, 24 feet long, equal to the dragons of antiquity, in Bavaria, and at Stonefield one in particular, 40 feet long and 8 feet high! In France, at a distance of 100 miles from the sea, is a single oyster-bed, which in oysters and other marine bodies, is equal to 500 millions of cubic yards! Forests of standing trees have been found in Yorkshire imbedded in stone, and others converted into iron-stone in Lapland and Siberia. Two caves, full of bones, have lately been discovered in France, and in one of them, the remains of rude pottery. A whole mammoth was found imbedded in ice near the mouth of the Lena; it was 9 feet high, and its horns weighed 400 lbs. All volcanoes appear to exist near a sea, and by the matter they eject, to have some communication with it; and Danberry ascribes earthquakes and volcanoes to the access of *water* to the inflammable bases of the earths and alkalies; and when the explosion is single or double, and confined in a cavernous space, it is an *earthquake;* but when fed and supported by water, as in an elevation, it is a *volcano.* Vast quantities of fish are sometimes thrown from craters of burning volcanoes. A person of Verona possessed a cabinet containing 600 fishes of different sizes, many of them of extraordinary size, extracted from Mount Balec, where they are imbedded in the calcareous quarries — a sort of marly schist of a light grey colour—and

afford a fetid odour, like putrefaction; in general they are perfect, and not mere impressions; there have been 94 species found, one 3 feet in length, and a young shark, with its food undigested in its stomach, and another fish has one, half-swallowed, in its throat!— *Selected.*

For the Farmers' Cabinet.

### Squirrels.

Mr. Editor,—I am glad that agriculturists are combining against the race of gunners, more properly termed *loafers*, who wage an eternal war against everything that has life in the shape of bird or beast, be it never so small and insignificant in value; their only object would seem to be extermination, without the least regard to the injury they are inflicting on the harmless animals themselves, or the proprietors of the lands upon which they trespass with impunity. It has often been calculated, that the services of a pair of small birds have been of more real value to the farmer than the labours of many a large animal, and the consideration of the subject seems at length to have awakened them to their true interests: it is to be hoped they will carry out their determination to afford protection to their *little labourers*, by which there is no doubt they will reap advantages an hundred fold. But, although we find many who are ready to advocate the cause of the birds, we never hear any commiseration expressed for the little animal, the squirrel, whose presence enlivens the otherwise lonely solitude of the deep wood, and adds a charm to every landscape, but who is doomed to destruction by wholesale, merely for the sport of the indolent and unemployed of every town and village in the land. I have lately met with a notice of this little interesting creature, which brings its labours into a new view, and by which it would seem that we might be able to account for those extensive forests of oaks which spring up spontaneously on the removal of a growth of pine; a circumstance that has baffled the conjectures of many of the learned amongst us, and has never been satisfactorily accounted for.

In a late English work, it is said: "The truth, that no animal is created but for some wise purpose, is beautifully illustrated in the squirrel. It is a singular but well-authenticated circumstance, that most of those oaks which are called spontaneous, are planted by this animal, in which way he has performed the most essential service to mankind. It is related, that a person walking one day in the woods, his attention was diverted by a squirrel which sat very composedly upon the ground. He stopped to observe his motions; in a few moments the squirrel darted to the top of a tree beneath which he had been sitting, and in another instant he was down with an acorn in his mouth, and after digging a small hole with his fore feet, he stooped down and deposited the acorn; then covering it, he darted up the tree again, and in a moment was down with another, which he buried in the same manner: this he continued to do so long as the observer thought proper to watch him. This industry of the little animal is directed to the purpose of securing him against want in winter, but his memory not being sufficiently retentive to enable him to remember every spot in which he deposited an acorn, he must lose many every year, which are destined to spring up at some future period to supply the place of the parent tree—perhaps a century hence!" B.

### Patent Tomato Figs.

"Take six pounds of sugar to one peck (or 16 lbs.) of the fruit. Scald and remove the skin of the fruit in the usual way. Cook them over a fire, their own juice being sufficient without the addition of water, until the sugar penetrates and they are clarified. They are then taken out, spread on dishes, flattened and dried in the sun. A small quantity of the syrup should be occasionally sprinkled over them whilst drying; after which pack them down in boxes, treating each layer with powdered sugar. The syrup is afterwards concentrated and bottled for use. They keep well from year to year, and retain surprisingly their flavour, which is nearly that of the best quality of fresh figs. The pear-shaped or single tomatoes, answer the purpose best. Ordinary brown sugar may be used, a large portion of which is retained in the syrup."— *American Farmer.*

### Crowding the Professions.

One of the ablest periodical writers in Great Britain, speaking of the ambition of adopting professional life of all kinds, and of the rush into the professions of "law, physic and divinity," thus points the mind's eye to the general consequences:—

"But thousands have died of broken hearts in these pursuits; thousands who would have been happy behind the plough, or opulent behind the counter; thousands in the desperate struggles of thankless professions, look upon the simplicity of a life of manual labour with perpetual envy; and thousands, by a worse fate still, are driven to necessities which degrade the principles of honour within them, accustom them to humiliating modes of obtaining subsistence, and make up, by administering to the vices of society, the livelihood which was refused to their legitimate exertions."—*Balt. Sun.*

If justice is not due to *brutes*, neither is it due to *men*.

For the Farmers' Cabinet.

## Agricultural Societies.

Mr. Editor,—Permit me to copy from an English paper, part of a speech delivered before the Royal Agricultural Society, at Liverpool, the latter end of July, by Smith of Deanston. Many of his remarks are admirably adapted to our latitude; and on the eve of our own Exhibition, which takes place on the 29th and 30th of the present month, would seem to be perfectly in season: I augur the best effects from these periodical gatherings of our practical men, and fancy that I see around me the beneficial results the whole year after. From what I learn, a very large and interesting meeting might be expected.

D. of C.

"Every farmer well knew there was nothing so profitable in agriculture as the consumption of his own produce at his own door and on his own soil, and the same principle which was good in small things, would also hold good in larger. It was to the advantage of the farmer that the grain he required should be produced on his own land, and there consumed; and it was equally beneficial that the manufacturer should have his manufactures consumed in his own country, leaving its enriching influence on the ground. This country had been able to bid defiance to the *cheap labour* of all other countries on the earth — and so she would continue. It was clear, that in order to have bread cheaper, the best mode is, to produce a greater quantity — because the more is produced, the cheaper will it be to the consumer, and the greater will be the quantity consumed.

"He would urge upon the society, not to discourage persons who came forward with what they might consider *improvements*, nor to be too hasty in rejecting such as were offered to their notice: he had frequently seen things offered to the notice of societies, which at first appeared exceedingly absurd, but in the end turned out to be really the *germs* of the greatest improvements. At the same time, he would advise competitors, if at first their implements were not noticed as they might imagine they deserved, not to be discouraged, but to *persevere*, and eventually they might depend on success. In taking a survey of the country, and especially of the surrounding neighbourhood, there was, it must be confessed, great room for improvement; but that meeting would doubtless sow good seed, and in due time an abundant harvest would be realized. In his opinion, there was no principle so well calculated for producing improvements as the *itinerating* principle—it excited a spirit of inquiry, and by converse with others it improved men's minds; and by competition, faculties were brought into exercise which would otherwise have lain dormant. It was for this reason, therefore, that he approved of such meetings as the present, its *ploughing matches* and other modes of competition amongst farmers and their servants, which were the means of incalculable good throughout the country. He had had the good fortune to bring forward some implements on the present and other occasions, (the Deanston Plough, &c.) and if his life was spared, he hoped on future occasions to exhibit still farther improvements."

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## Bran as a Manure.

I am desirous of calling the attention of your readers to the consideration of bran (the husk of wheat) as a manure, not only for turnips, but also for wheat and grass. The great facility that every farmer has of obtaining it from his neighbouring miller, and its cheapness, warrant their trying a series of experiments in drilling it with turnips and wheat, and putting it over their grass lands as a top-dressing. Experiments have been tried, but not extensively enough to warrant its being said how much is saved in expense, and what quantities per acre ought to be used to render the best return. It is to this point that I wish attention to be directed, and as Sir Humphry Davy in his "Elements of Agricultural Chemistry" writes—"Nothing is more wanting in agriculture, than experiments in which all the circumstances are minutely and scientifically detailed"—would some of your readers assist this object, and drill a small portion in each of their fields of wheat and turnips, with bran in quantities from 3 to 6 cwt. per acre, and report the result in your paper.

The following extracts from Liebig, would leave, in theory, bran to be at once the cheapest and best manure that could be employed:

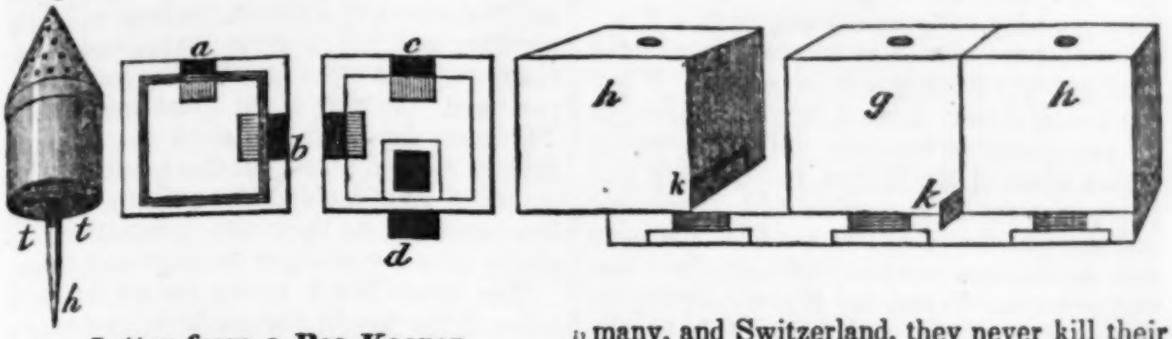
"Phosphate of magnesia, in combination with ammonia, is an invariable constituent of the seeds in all grasses. The bran of flour contains the greatest quantity of it.

"The perfect development of a plant according to this view, is dependent on the presence of alkalies or alkaline earths; for when these substances are totally wanting, its growth will be arrested, and when they are only deficient, it must be impeded.

"So likewise none of our corn plants can bear perfect seeds, that is, seeds yielding flour, without a large supply of phosphate of magnesia and ammonia; substances which they require for their maturity.

"It is the greatest possible mistake to suppose that the temporary diminution of fertility in a soil is owing to the loss of humus—it is the mere consequence of the exhaustion of the alkalies."—*Mark-lane Express.*

Fig. 1. Fig. 2. Fig. 3.




## Letter from a Bee-Keeper.

NOTHING gives me greater pleasure in a country walk than to hear a bee buzzing by my ear, as I pass the fence of a cottage. A row of bees is always a good sign. It shows that the owner takes pleasure in his home. Whenever I stop to have a talk with him about bees, I always get a civil answer, and thanks for any thing I can tell him.

There is an old and true saying, that it is no use trying to help a man who will not help himself. Now the cottager who keeps bees is trying to help himself and his family too; and the help which I can give such a man will most likely come to good. I often hear, that when a man has *good luck* in the swarming time, and when it is *luckily* a good bee year, the money he gets for his honey goes a good way to pay his rent, or get some warm things for winter;—some years are certainly better bee years than others; man has nothing to do with the weather. But I wish to show you how to make the most of good years when they do come, and that a little *common sense*, with pains taken in a good way, has more to do with the matter than what you call *luck*.

In the first place, then, NEVER KILL YOUR BEES. Many of you will say, "Our father and grandfather did so, and why should not we? We think it far the best way to burn the lightest and heaviest. The first would not live through the winter. We may get *something* from them, and *plenty* from the heaviest." This is very well for those who know no better; but I am sure you are willing to try a better way if you hear of one, as every one of you must feel sorrow when you *murder* by thousands in the autumn, those who have worked hard for you all the summer, and are ready to do so again next year. I myself was told by a bee-master, that he always saw the ghosts of the bees the night after he burned them; and have heard of an old woman, who never went to church the Sunday following. She felt she had done a most cruel deed, and she was right in so thinking. But to pass over the cruelty. If I can show that you may get much more honey without killing your bees, the least you can do is to try the plan. In France, Germany, and Switzerland, they never kill their bees. Whenever I asked if they did so, they smiled at my question, and said, "Oh, that would never do; we should never keep up our stock." "How, then, do you get the honey?" "Oh, nothing is easier." And these poor cottagers, without half the means we have, never burn their bees. Some of them make their straw hives with the top to take off, and fasten it down with wooden pegs: in July they pull out the pegs, and, with a large knife cut away the top of the hive from the combs which are fixed to it; they then cut out what honey the bees can spare, never caring for those which are flying about their heads; for they will not touch them if they have a pipe in their mouth. When they have helped themselves, they peg the top down again, and leave the bees to make all straight, and gather honey enough for the winter in August and September. Others put another large hive on the top of a strong stock, in May, which prevents their swarming. This hive they take off when full. Others turn up their hives in July or August, and cut out some of the combs. Others, who know more about it, place square wooden boxes one on another, putting empty boxes below, and taking away full ones from the top. But this gives coarse honey, as I shall soon show. All these ways are clumsy, much worse than those I am going to teach you, but all better than burning the bees. Well, then, let this be your first rule, *Never kill one.*

*How to unite weak Swarms by the Fungus or Puff Balls.*—You may find in damp meadows a fungus which children call "puff balls." When they are quite ripe, if you pinch them, they give you a dirty powder, like smoke. Pick them when half ripe. The largest are the best. Put them in a bag, and when you have squeezed them to half the size, dry them in an oven after the bread is drawn, or before the fire. The fungus is fit for use when it will hold fire like tinder: keep this dry till the time you take your bees. In the autumn weigh your hives; mark those which are heaviest and lightest. This, of course, you cannot do *rightly*, unless you know the weight of your hives when empty. Weigh them before you put the swarms into them, and mark the weight on the outside,

that you may not forget it. Casts, except they are very early and strong ones, will seldom stand the winter, or they will be so weak next spring, that they will do no good. When the honey season is over, stop up over night all you intend to take up. In the morning, take a piece of the fungus, twice as big as a hen's egg, put it in a stick split at one end and sharp at the other: have a hive, the same size as that you intend to take up, fixed bottom upwards. When this is ready, light your fungus, and as soon as it burns well, fix the sharp end at the bottom of the hive which you have turned topsy-turvy, and place the hive you intend to take on the top of it, and tie a wet cloth round the two hives, that no smoke may get out. You will soon hear the bees drop down: tap the top of the full hive, to make them fall *quicker*. When they are all down and quiet, lift the full hive gently off, and turn all the bees which have fallen, on a table. They will be quite harmless and still, as if they had been burned with brimstone; but the fungus does them no injury. Look for the queen bee, which may easily be known. It is well to have several persons round the table to search for her, as also to cut out the combs and sweep the *bees* off. If you find her there, keep her safe on one side, and sweep all the other bees back into the empty hive; then cut the combs carefully out, one by one, and if you have not already found the queen, look sharp for her on each comb. She generally does not fall down, but holds fast to the top of the hive in the very middle. Sweep the bees with a feather back into the empty hive, as you carefully take the combs out one by one. In a quarter of an hour, they will "come to." As soon as they begin to crawl about, take a hive which is strong enough to stand the winter, or one which, having swarmed often in the summer, is weak in bees, though heavy, (this, too, must be stopped up the evening before,) and put it gently on the top of the empty hive where the smoked one stood before, keeping the bees of the two stocks asunder with some coarse canvass, such as is used for straining milk. A piece of thick paper, full of pinholes, will do, but a sheet of tin punched with holes, the 16th of an inch over, is best of all. You may slip it under any hive you wish to move, and place it on the top of the empty hive, or elsewhere, without letting one bee out. Keep the bees in the two hives for twenty-four hours apart from each other. On the evening of the 2d day, draw the tin, paper, or canvass, away without disturbing the hives. Tap the empty hive, and the bees which have now forgotten their own queen, which you have taken away, will go up into the full hive, as if they belonged to one swarm. Early next morning, when all is quiet, set the doubled hive back in its old place. If you pull the tin away too soon, the bees will fight terribly, and kill a great many, and sometimes even the other queen. For fear of this, you must take care of the queen you smoked. The next day after the stock has been put back to its own place, put this queen into the mouth of your doubled hive; if any accident has happened to their own queen, they will gladly take the stranger to reign over them.

The figure No. 1, shows the tin box with holes in the top for the smoke to go through, which is very handy, as it prevents any of the bees falling into the lighted fungus: *t t* are holes in the bottom of the tin box, to let air in, or it will not burn; the top, which takes off, is full of holes to let the smoke through: *h* is the sharp point which is to be stuck into the hive. This way of smoking is very useful to unite a cast to another stock which is weak, or to put two casts together: when you want to do the latter, smoke them *both* as above. Pick out one queen, put all the stupid bees into one hive, (that one which has some comb already made, by choice,) and sprinkle them over with a little sugar and beer. They will take to one another when they have helped each other to clean off the sugar with their tongues. Even if you are lucky enough to have none weak, always unite your casts to a hive which, though strong, has plenty of room; for the same number of bees will do more good together than they will in two hives. A doubled hive will eat no more honey in the winter than a single one. The reason of it seems to be, that where there are many bees in a hive, they can keep warm by hanging close together, instead of eating. So that in a full hive the same quantity of honey goes farther than in a weak one, as each bee eats less. Have all your hives made the same size, that they may fit one another exactly. Some people say, "We have smaller hives for our casts and weak swarms." I say, never have weak swarms or casts; or, when you have them, join them to another. The reason of this you will soon see. Make them also with a hole at the top, an inch and a half over, with a bung to fit it. This is needful for the plan of capping, which I am now going to teach you.

In May, when your hives get full of bees, and they begin to hang out, put a small box, which will hold about 10 lbs. of honey, on the top of the strong stock, (after you have pulled out the bung,) with a bit of glass at the back, that you may see when it is full. The bees will fill it sometimes in a week or ten days. Directly it is full, take it off; it will be white honey. These little caps will give room for the bees to work, who otherwise would hang out idle at the mouth of the hives waiting for

swarming. I have had them hanging out for a month together, for the bees do not know the time when the queen will be ready to swarm. Even when she is ready, they are often kept back many days by clouds or winds; and they are too wise to tire themselves by work on a day when they *may* have a long journey to go in swarming. Not only are they idle, but the other bees are forced to feed them; for every bee that goes off with a swarm has his stomach full of honey, which is taken from the common stock. By means of the cap, you make those bees work who would otherwise be idle. The cap must not be larger than the size I have told you; for if you put on a full-sized hive, you give them so much room, and make the hive so much cooler, that they will not swarm at all. But this cap will not make them swarm one day later than they would otherwise do. Besides, if the cap is too large, the queen will lay her eggs there also; and when you take it off, you will find black combs instead of virgin honey. So much for the stocks which you wish to swarm.

I will now show you, that when you have once got your stock up to its full number, it is much more profitable *to prevent their swarming*. And as to the number of stocks, few cottagers keep enough: there is hardly more trouble in taking care of twenty stocks than two. In Germany, I saw a man in a good honey country who had 200. On the old plan of burning the bees, a cottager's stock is sometimes large, sometimes small. After a bad honey year, he is often tempted to burn many of his good old stocks, in order to make up by numbers the same quantity of honey which in better years he will get from few. Suppose he leaves three stocks, of which two stand the winter, and the next year turns out a very good bee year, he is then not ready to make the most of it, and of course only gets one-tenth of the honey which he would, if he had twenty stocks, as he ought to have.

Man has nothing to do with the weather, as I said before. All I can do is, to show you how you may make most use of a good year, get a fair quantity of honey in a middling year, and not lose all your bees in a bad one. 200 lbs. have been taken from one stock, without hurting the bees, by a method which I will teach you, whilst the heaviest cottage hive I ever heard of was under 100 lbs. I just now said, it is better not to have swarms. If I with 10 stocks get 60 lbs. of honey, which I easily can, from each, without destroying one of my stocks, am not I better off at the end of the year than you, whose ten stocks have all swarmed, and who, when you take up all the swarms in the autumn, think yourself well off if you get 20 lbs. from each. You get 200, I get 600 lbs. of honey. But I will show you how to be as well off as I am. I have said it is best to prevent swarming: now hear the reason. The queen bee lays from 10,000 to 30,000 eggs in the year. In a stock containing 3000 bees, almost all of them in middling years will be busy in nursing the grubs, *for they are such good mothers that they think it their first duty to feed their young;* gathering honey is their second. A swarm goes off: you have two queens, each with 3000 bees, busy in rearing the eggs which the two queens lay all through the summer. They have no spare time to gather honey, and so, in a bad year, a stock with plenty of bees in it will be often almost empty and worthless when you take it up in the autumn, and sometimes even die in *the summer* if it is not fed. Now if you prevent swarming by giving them plenty of room, 3000 bees, who were nurses before to the grubs of one queen, will be enough to do the nursing work to the hive, though it is so much larger; for each hive has only one queen: and one queen cannot lay eggs enough to require more nurses, though two may. The other 3000 will store honey in the spare room you give them, which you may take as I will show you. But before I fully explain my method, as I am going to speak of bottom boards, I will say that stone and slate stands are very bad for bees. They are too cold; the bees which in the winter come down upon them get chilled, and cannot get up again. Wooden bottom boards are far best, as well as most handy. Look at figure 2: you see a wooden bottom board with the door-way *a* cut in it, (it is better to cut the entrance in the board, and not in your box, for by this means the wet of the box runs down the slope of the wood.) You see it has another entrance *b* on the box side. The dark mark is meant to show where a box will stand on it. The other bottom board is just like it, only the second doorway is on the *left* side (the two doorways must be made to fit each other when they are pushed close.) As soon as your bees get so strong in May that they begin to hang out, push the two boards close together. In the evening when they are all in, shut up the front entrance *a*, open the right-hand one *b*, and put an empty box on the new board, with a glass in the back, and a hole, one inch and a half over, on the top of it. Its place is marked *thin* in the wood-cut. Each doorway has a bit of tin laid over as much of it as juts out beyond the hive. The bees will find no way out next morning, and will be rather bothered at first by this change; but if you put the new doorway exactly where the old one was, and rub the board with a little honey or sugared beer, they will soon take to it.

As their numbers increase, they will begin to build combs in this new hive. As soon as it is full, you may take it away in this manner. In the heat of the day, when many bees are out, slip a piece of tin or card between the two doorways; shut up the doorway *c*, and open the old doorway *a*, after you have pushed it back into its old place. If the bees go on working the rest of the day all quietly, you will be sure that the queen is in the *old* hive, and all is right. About half an hour before dusk, open again the doorway *c;* and if, as you suppose, the queen is in the old hive, the bees, frightened by their long imprisonment, will hurry from one doorway to another, to join her. As soon as most of them have gone round, take away the full hive for yourself. If the old hive is very uneasy all day, you may be sure that the queen is shut up in the *new* hive; if so, draw out the piece of card or tin, to join them again, and wait till another day. Here you have a good hive of honey made by bees which we have *prevented* from swarming; from which if they had been parted by swarming, you would, perhaps, have got none.

Figure 4 are wooden hives. *g* is the middle box, into which the bees are to be swarmed, and never after disturbed. It may be as hot as they choose to make it; there the queen lays her eggs, there the nurse-bees do their work, there they lay up honey sufficient to keep them through the winter, there they sleep through the winter; in short, it is their nursery, their feeding-room, their palace, their home, their castle, *for they must never be disturbed there.* The side-boxes *h h*, are only barns, where they lay up their spare honey, and which you may take as fast as they are filled. (In a good honey year you will often get a box weighing 50 lbs. early in June.) *k k* are the slides, which pull in and out, and which open or shut the way from the centre to the side-box.

Always keep one of the side-boxes empty. As soon as the one on the right hand gets pretty full of honey, and the hive gets so hot that if you do not give them more room they will soon swarm, pull out the slide, and let the bees into the left hand box; this will make them cooler. As soon as they have taken to this new barn, take the full one, empty it, and place it back, to be used again as soon as the left hand one gets full. The boxes must each be about eleven inches clear on the inside by nine inches high. This is the best size for common use. A square box is far better than a round straw hive, as they can make all their combs full sized, without any of the small and useless ones with which they fill up the cottage hives.

*Winter Place for Bees.*—The place where you put your bees in the winter is of no less matter. If they are left in their summer place, fronting the sun, every bright day, even in December, tempts them out. They find nothing, are of course more hungry, and eat more on their return. Many of them never get back; when they get out of the warm sun into the cold wind, they fall stiff, and die.

The best place to put bees in is a *dry and dark room or out-house.* (Damp cold gives them the rot.) Put your bees there the last week of November, and let them sleep quietly till the flowers begin to come out at the end of February. Put their bottom board slanting, that all the wet may run out at the door; or, still better, hang them up in a coarse cloth: this will let in the air and catch the water. Weigh them before you put them away and when you bring them out, and you will find them much stronger, as well as heavier, than any you leave on their summer stands. If you have no such room or out-house, at least keep the sun away from them, or put them on the north side of your house, if the place is dry. In Switzerland a whole village clubs together, and hires a cold dry room, which they darken, and put all their bees in. If more cottagers kept bees, much of the honey which is now wasted would be gathered. I have taken the trouble to see how much bee-produce is brought into England every year from foreign parts. It is £32,000 in wax alone, besides honey. Every cent of this might go amongst those to whom it is of the greatest consequence, namely, the cottagers. The flowers, too, are all the better for the honey being taken. I heard a farmer say, that his orchard bore double the crop it had done before he took to bees. And what is the reason honey is found in flowers? Its only use, rather its chief use, is not for men to eat, but to draw bees and honey-eating flies to the flowers. They carry the farina, or dust, on their legs from flower to flower, which makes them bear fruit. *If there were no bees or flies, there would be no apples.*

I must repeat, NEVER KILL A BEE. The poor insect has enough enemies to contend with: starvation and damp in the winter; moths, hornets, and robbers of their own kind in the autumn; dry summers, which often press them very hard; cold and backward springs. It has been well said, that man, who ought to be their best friend, is often their worst enemy. They have no defence against the brimstone match, though, with some help from man, they can conquer all their other enemies. Be kind to them, and, like reasonable creatures, they will fully repay you. Do not listen to those who tell you that after two or three years the bees will do no more good; that they get old and lazy; and that therefore they had better be taken up. They do no such thing.

When moths have laid their eggs in the hive, turn it up, and cut freely out the whole of such combs as have the grubs of the moth in them; for it is easier for the bees, if you do it in the spring, to make a new comb than to mend an old one; and you may perhaps leave some grubs, or eggs, unless you do so. But prevention is better than cure. Prevent wasps, moths, or robber bees from coming in, by making the door smaller, when they are about. The bees will be better able to fight for themselves. They teach you what they want by building up little pillars of wax in the doorway. If robbers have taken a hive, use your fungus directly; take what honey is left for yourself, and join the smoked bees to some hive which wants strengthening. Keep them shut up for two days after, till they all get friends. *None but the poorer ones rob; none but the weak are robbed.* So you can *prevent* robbery, though not *cure* it: unite all your weak hives, and unite and feed your poor ones. But you say that feeding costs something; so it does. But every pound of food given at the right time, as in a cold, late spring, will be repaid by the bees when the weather changes. Another time when feeding is quite needful, is when the weather comes bad within two days after a swarm is put into a hive. The bees, as I said before, swarm with their honey-bags full. You may have noticed that very few bees go out the day after the swarm. They are then busily engaged in building their combs, of the *honey* which they carried with them. You will smile at the notion of building combs with honey, but it is true nevertheless. What they carry in on their legs is bee-bread, not *wax*. The honey goes from their honey-bag into their stomach, and then drops out in little white plates of wax from under the scales of their abdomen, or tail. I have watched it myself, for half an hour, coming out of a bee who was hanging in a cluster, with his belly towards me, close to the glass. I always feed my bees for two or three days after they have swarmed, be the weather fair or foul. It saves time, and helps them to get their combs sooner made. Nothing you give your bees is thrown away; all is repaid with interest. *Not a single ounce of honey has ever been wasted by bees since the world was made.* You do not waste your honey by feeding, but only, as it were, pour it out of one pot into another, where you may find it whenever you want it, and not only so, but you find a peck where you put a quart. Another time when feeding is needed is in the dry, hot months of summer, when the flowers have no honey, but fade as soon as they blow; feeding will then always cheer your hive, saving the lives of many young bees when their *dry* nurses cannot otherwise feed, and even save a whole hive. Sometimes I myself have seen, in a dry summer, thousands of bee-grubs lying before the hive, which the old bees, unable to keep, have thrown out. This seems cruel, but it is, in truth, kindness; when thus thrown out, they quickly die, whilst, if kept in the hive, they would linger on a long time, half starving. Autumn feeding should not be done later than September. Weigh the hives you wish to keep; if they are 2 lbs. or 3 lbs. short of 20 lbs., give it them all that time; they will lay it all up in their cells; and though feeding in the winter is better than no feeding at all, and has often saved hives, still it murders many bees who come down into the cold. It is as if you had always to go down and dig your potatoes in the frost and cold of December, instead of laying them up safe and handy.—As for food, never press your combs; let the honey drain from them, and so you may get clear honey, which is worth a great deal more, even from common black combs. When all has run that will, put the combs by, till the time when your bees want food in the summer; then put them before your hives; they will clear them in a very short time, and not only thank you, but repay you too. Again I say, *nothing is wasted.* If you feed with beer and sugar, which is next best, do not put more than 1lb. of sugar to a quart of beer; nor boil it more than five minutes; this melts the sugar; longer boiling would make it thick and unwholesome.

Many people, who would otherwise keep bees, are afraid of their stings. There are some people, it is true, to whom a sting is really dangerous. Many remedies have been given for a sting; above all, pull the sting completely out, as it is barbed, like a fish-hook, and will work into the flesh. Then squeeze the poison out with the pipe of a small key, as you would a thorn, and put a little honey on the place, just to keep the air away: if this is done at first, the swelling will generally be a mere nothing. But, as I have said before, prevention is better than cure. Listen to the words of an old writer, who lived two hundred years ago:—"If thou wilt have the favour of thy bees, that they sting thee not, thou must avoid some things which offend them; thou must not be uncleanly; for impurity and slutishness (themselves being most chaste and neat) they utterly abhor: thou must not come among them smelling of sweat, or having a stinking breath, caused either through eating of leeks, onions, garlick, and the like: thou must not be given to surfeiting or drunkenness; thou must not come puffing and blowing unto them, neither hastily stir among them, nor resolutely defend thyself when they seem to threaten thee: but softly moving thy hand before thy face, gently put them by: and lastly, thou must be no stranger unto them. In a word, thou must be chaste, cleanly, sweet, sober, quiet and familiar: so will they love thee, and know thee from all other." Above all, never blow on them; they will try to sting directly, if you do. If they come all about you making the noise which you will soon learn to know as a sign of anger, go quietly away, and put your head into a thick shrub, if any is near. This will brush them off.

I have now done. Learn, from the bee, to work hard, and waste nothing. Remember, nothing worth doing can be done without a little trouble; and, above all, *help each other all you can.—Yankee Farmer.*

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We are obliged to our friends for several fine samples of grain, and other produce, which have been, from time to time, deposited at the Office of the Cabinet; especially for some very large stalks of Corn. Our wish is, to form a sort of Cabinet of this *chief of all grains*, and should be glad to obtain a few of the finest ears of the distinct varieties, presuming, that in this remarkable season of fertility, there will be found samples of unprecedented growth.—Ed.

### The Hessian Fly.

When I began to manage the farm where I now reside, which was twenty-one years ago, I had heard much of the ravages of the Fly, and of the different pickles for the seed, to prevent the evil. Some would find a certain preventive in lime-water, others in a solution of nitre, strong brine, &c.; all based on the idea that the egg, or nit, from which the fly came, was carried into the earth in the fuzzy end of the grain. For the purpose of trying the effects of the different soaks, I prepared some seed-wheat in each kind of soak, and sowed it in a lot near the house, the middle of September, keeping each kind by itself: other seed I sowed on cotton, floating on water, in a glass vessel in the house; which vegetated about the time as that sown in the ground. I let all stand until the 25th of October, when I examined the plants from the different kinds of soaks, splitting them from the roots to the tops, and placing them under a strong microscope, when, to my surprise, nearly every plant that came from the lot was perforated near the surface of the ground, having from three to eight eggs, or nits, in each, while those taken from the cotton had neither perforation or nits about them. This satisfied me that the fly was not carried into the ground by the seed. I therefore came to the conclusion, that if I kept my wheat out of the ground until after a few good frosts, which would be likely to destroy what flies there were, I should not afterwards be troubled by them; and from that time to this, I have never sown my wheat until October, and have never found my grain injured by the fly, although I have not omitted sowing for eighteen years. From this I conclude, that the farmer who sows his wheat early, and thereby gets his crop very fine in the fall, offers the Fly a shelter for its eggs, and invites them to destroy his grain.—*Alb. Cult.*

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For the Farmers' Cabinet.

### Mediterranean Wheat.

The pleasant time for wheat-sowing has again returned, accompanied with its countless nostrums for the cure of diseases, which are to fall out about nine months hence, in the shape of Rust, Fly, Mildew, &c., all which are to be prevented, or cured, by certain steeps and ablutions, to be practised upon the grain before sowing; but although these were all put in operation "secundem artem," the past year, how deplorably inferior have the crops of wheat proved the present season! in fact, I have not yet seen a tolerable sample of wheat grown in this neighbourhood — all are defective, and many to a ruinous extent. Numerous inquiries are making for the Mediterranean species, for seed, and certainly, its being, hitherto, found proof against the Fly, is a strong recommendation; but its diminutive ears, and short straw, its inequality of sample, and inferiority of flour, render it, to me, a very exceptionable variety; indeed, I wonder how any good manager would be content to grow ears two inches in length, yielding only twenty grains, on an average, with straw so weak and short as to fall before the crop is ripe, and diminishing the size of the dunghill nearly one-half. I have examined many crops of this peculiar species of wheat, and am convinced, in my own mind, that it is the real "*Tres mois*," or French spring wheat, which, as its name imports, becomes ripe in "three months" from the time of sowing, and of which I have seen hundreds of acres growing in Europe, particularly in the Channel islands, Guernsey and Jersey, where it is valued, chiefly, on this account, a character for earliness, which it has sustained in this country and climate; coming ripe, under the same circumstances, ten days, or a fortnight, earlier than anyother variety known amongst us; thus, probably, escaping the rust, which is pretty sure to fall on the late-ripening wheat: but, wherever it is sown, in Europe, it is considered a very inferior crop, and is cultivated only on land that is either too poor or ill-conditioned to warrant more than half a yield of other varieties. Now it would be easy to test the correctness of this idea—namely, that it is a spring wheat—by sowing it in the spring; and, if my suspicions be well founded, it will bear forcing by manure, at that season, without much danger of its becoming too gross in the straw, or being injured by the rust, provided the dressing so applied be properly decomposed, and well pulverized. In the islands above-mentioned, it is customary to sow it on a soil well dressed with the ashes of sea-weed—perhaps the most stimulating of all manures — which it will bear without rusting; the surface of the land reeking like a boiling pot, many days after the seed is sown.

I have had an opportunity of seeing the Red Cone-Wheat, imported by Mr. Zollikoffer, the present season, a description of which is given at p. 314, of the 5th vol. of the Cabinet, and have no hesitation in saying, if such wheat can be grown in this country, it will, in all probability, supersede the use of all other varieties, on our cold and stiff soils. I shall look with anxious expectation to the time of its ripening amongst us. SUBSCRIBER.

Berks Co.

We have examined a sample of Mr. Zollikoffer's wheat, and have never seen a finer specimen, if the real Red-Cone—we trust the expectation that it is fly-proof —and which, we suspect, will include the term *rust-proof* also—will be realized. The addition to the straw-yard, when compared with the Mediterranean species, will, if it succeed in this warm climate, amount to half the value of a middling crop.—ED.

For the Farmers' Cabinet.

## Pernicious Weeds—Canada Thistle.

It is strange that farmers are not more aware of the injury of allowing pernicious weeds to flourish unmolested on their farms, when by a little attention and labour they are so easily extirpated. I have frequently seen whole farms covered with wild carrot, daisy, &c. A weedy farm, bad fences, and a lazy farmer, generally go together. Weeds are like little debts: a few are not felt, but if the habit of contracting them be persisted in, they soon run up to an alarming amount, and perhaps finally ruin the possessor.

Weeds should be pulled as fast as they appear. If the first be removed, there need be little fear of the second. They increase at the rate of a hundred fold; and it is not merely the space they occupy, but the nourishment they take from the soil. A crop of weeds will impoverish land almost as much as a crop of corn or grass, and wherever they flourish abundantly, it is impossible to have a full crop of anything else. A farmer who allows weeds to grow, will not only injure himself—they are continually encroaching upon his more careful neighbours.

Two years ago, I had a lot entirely covered with St. Johnswort, which had taken such a deep hold of the soil, that it had almost effectually destroyed the clover and timothy. I mowed it about the middle of July, when the seeds were nearly ripe, and when the young shoots sprung up, I turned a flock of sheep upon it, which kept it completely eat down until frost. Last spring there was scarcely a stalk to be seen, a beautiful growth of timothy and clover having taken its place.

But the Canada Thistle is, perhaps, the greatest pest to him who is so unfortunate as to get it on his land. It spreads rapidly, both from the root and seed. It first came into this neighbourhood in a cargo of timothy seed from the northern part of New York, where it has so completely taken possession of some sections, that the land is almost worthless. Many abandon their farms altogether, finding it impossible to reap the wheat; and the cattle will not eat the hay when mixed with the thistles. It is next to impossible to destroy it. I have tried various means, but none seem to answer in a satisfactory manner. I believe the best way is to dig it up, and salt it well, as the least particle that is left in the ground will grow. I have dug to the depth of two feet, and poured brine over the roots, giving the whole a pretty thick coat of salt; this stopped the growth for one year, but the next summer it was thicker than ever. I suppose it grew from the seeds which were nearly ripe when the thistles were dug.

How effectually to destroy these pernicious intruders should be a part of the study of every farmer. But it is a subject that has received but little attention, generally. We should be up and doing; and now (in September) when we have little of importance to do, we should shoulder the hoe, scythe, and spade, and go forth to the field to meet these common enemies. If once effectually "driven from the plains," it will be some time ere they return again to harass us.

W. C.

Brandywine Hundred.

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## Horticulture.

Our Horticultural Society embraces among its members the *young* — this is well. — To create a taste for such studies at an early age, should be the effort of every one who has the true interest of the young at heart: — for we can conceive of no single vice or low pursuit to which the young are exposed, which may not be counteracted by early instruction in the pursuits of the garden or the field, and children and youth are particularly inclined to this branch of easy employment: even the picturesque scenery of your busy city invites to a study of the beauties and wonders of nature. The rare and beautiful wild flowers which now adorn your table, were the humble and happy offerings of youth; and show that the wild banks of the river, the broad meadows, the oaken woods, and even the tall trees of your streets, amidst high piles of masonry, and the diversified flora of your vicinity, are favourable to the study of flowers—and show that the narrow area of your dwelling-houses is capable of affording your children sufficient space for their mimic floriculture; and not a few of the more delicious fruits, even, might be trained to your sunny walls by the careful and curious fingers of those little happy inmates, in whom are centred your anxious wishes and your choicest blessings. The rearing of a few plants in pots may occupy a child's leisure hours; and were the young person of a more advanced stage of life, even, to whom could such an attention to the wonders of vegetation be otherwise than ever instructive and delightful? I hail the efforts of the young, in their votive offerings to Flora, as among the happiest omens of our day.

Nor must I forget to offer the meed of praise due to the *other sex*, who, by the constitution of the society, are enrolled among its most honourable members! Some of the most superb green-houses and gardens in England are the property, and under the management of women of the highest rank,

with whom the mysteries of floriculture, and the higher branches of gardening, are familiar. With the female mind such pursuits are congenial. The parlour is rendered magic in its attractions by the nurture of some superb exotic, under the fair hands of the wife, the mother, or the sister; and whatever lends a charm to *home*, demands our sacred attention! Many a child has been won to the *graces* of life by the ministry of some flower which affection has reared, and which a *mother's* hand has cherished: and who ever can forget what *she* has loved, or pass with an indifferent eye the flower in which she has delighted! Never should the beautiful anecdote of the illustrious CUVIER be forgotten, in his admiration of the red-stock gilliflower, because it was his *mother's flower!* Tokens of enduring affection and of sacred friendship! what more appropriate gift can be offered upon the family altar than these living types of beauty, love, and everlasting remembrance! — *Professor Russell's Address.*

### Transpiration of Plants.

IT is found that a sunflower in twelve hours transpires by its leaves one pound fourteen ounces of water (nearly one quart), all of which must have been imbibed from the soil by the roots; water being the vehicle which conveys nourishment to plants. The food which it holds in solution is imparted to a plant in a manner analogous to the nourishment imparted to the animal system by the food which passes into the stomach. Hence, the growth of the plant depends much on the presence of moisture as well as of vegetable matter in the soil, and upon the sufficiency of the roots to take it up and convey it to the trunk:—thus, if a tree is divested of a great portion of its roots in transplanting, it makes new wood only in proportion as these are replaced by a new growth; and thus, also, a plant grows faster in a moist soil than in a dry one—the fertility being both alike—and faster in a mellow soil, where the roots can fully extend and multiply, than in a hard one. These facts suggest—1st, the impropriety of ploughing deep between the rows of corn and other crops while much advanced in growth, whereby the roots might be broken and wounded, and exposed to the drying influences of the sun and winds. 2d, the importance of keeping all crops perfectly clear of weeds and grass, which rob the soil of food and moisture; and 3d, the propriety of transplanting trees while they are young, when the system of roots can be preserved nearly entire, and of surrounding them with a bed of mellow, rich earth. — *Selected.*

WE all receive from society full as much as we give.

### Cutting Stalks—Harvesting Corn.

SOME farmers still pursue the old way of topping their stalks, as it is termed, which is cutting off the stalks of corn at the first joint above the ear, soon after the grain becomes turned or grows hard. Many experiments have been made, showing that there is a loss of grain in cutting stalks at the usual time; for when some rows in a piece have been cut in this manner, and others allowed to stand, it has been proved, on harvesting, that the corn which remained uncut yielded the most, in some cases, by twenty per cent. The sap ascends from the roots to the leaves of the plant, and there it undergoes an important change, becoming elaborated into juices suitable to add to the growth of the plant, or fruit, or to form and perfect its seed, and any mutilation of the plant is injurious. We have seen a complete failure of corn when grass-hoppers had eaten off the leaves. Let the leaves be stripped from any plant, and the consequence will be a failure in growth, and in fruit or grain as the case may be.

When corn is so ripe that it may be topped without injury, then it may be cut up at the bottom without loss; and if this be done when the kernel is well glazed, and becoming hard, then the butt, as well as top stalks, will be saved in a good condition; and, after it is shocked, the grain will still receive some more nutriment from the stalk, if it is not perfected. In this way, the grain comes to perfection, the stalks, both top and butt, are saved in a good state, and the harvesting is done at a far less expense than that of topping, gathering the corn, and cutting up the butts. Farmers, make exact experiments, and report the result.

Late corn cut up when full in the milk, will ripen and make sweet bread. We have cut up corn in cold seasons, in this state, just before a frost, and saved it well; when it would have been worthless had the frost struck it. When there is a prospect of a cold frosty night, or in the evening, when the frost is at hand, corn may be saved by cutting immediately and laying it in heaps on the ground, as then only a little at the top will be affected by frost. Fine warm weather generally succeeds the first frosts, and the corn will ripen in the shock. But if it be killed by frost when in the milk, it is not good, even for hogs. — *Farm. Jour.*

LET no man be trusted in his professions of attachment and devotion to the people, who does not show by his own conduct in the relations of private life, that he is just to those that have not a strong arm to enforce their rights; and that he has an ear for the claims of those that speak their wants and distresses only in whispers and sighs.

## Agricultural Exhibition.

The Exhibition of the Philadelphia Society for the Encouragement of Agriculture, will be held at the Rising Sun, on the Germantown road, near Philadelphia, on the 29th and 30th of this instant September. The committee of arrangement would remark, "the premium for the best ox or steer *raised* in Pennsylvania," will now embrace those that have been *fed* there also. The notice will now read, "For the best ox or steer raised or fed in Pennsylvania," $10.

All stock, &c., contributed, must remain on the ground during the two days of exhibition; and all stock intended for sale, will be required to be registered in a book provided by the committee of arrangement, at the following rates: For each horse, $2—for neat cattle, $1—for hogs and sheep, 50 cents each.

## Trial of Ploughs and Ploughmen.

At a stated meeting of the Philadelphia Society for Promoting Agriculture, held on the first instant, the committee of arrangement were authorized to offer the premiums expressed in the following resolutions:

*Resolved*, That a premium of Ten Dollars, or a medal of that value, be awarded to the owner of the best Plough, to be tested at the annual exhibition of the Society, on the 29th and 30th of September instant; and that a premium of Ten Dollars, or a medal of that value, be awarded to the best Ploughman, on the same occasion.

*Resolved*, That the Ploughs tried on the occasion, be selected from those exhibited, which are to be new, or used only preparatory to the exhibition.

*Resolved*, That the owner of each Plough exhibited, shall have the privilege of selecting his own ploughman and horses.

*Resolved*, That a premium of Five Dollars be awarded to the best Subsoil Plough, to be tested at the foregoing trial.

Competitors are requested to give notice of their intention to compete, on or before the 25th instant.

By order, P. R. Freas,
*Sec. Com. Arrangement.*

## Horticultural Exhibition.

The Pennsylvania Horticultural Society propose to hold its thirteenth Exhibition on the 22d, 23d, and 24th of this month, at the Masonic Hall. The approaching exhibition is expected to be unusually rich and splendid. Contributions in plants, fruits, flowers, and culinary vegetables, are solicited by the committee. Premiums for the fruits and vegetables to be competed for, will be awarded at 9 o'clock A. M. on the second day (23d,) and for the flowers and bouquets, at 11 o'clock A. M., on the first day of the exhibition.

We have been honoured by the presentation of an Essay, written expressly for our work, by Dr. Darlington of West-Chester, on a subject of the greatest interest to our readers. It is entitled, "Catalogue of a *Farmer's Herbarium*, or of such Plants as Agriculturists ought to be acquainted with," and consists of the enumeration and familiar description of 150 varieties of plants, both noxious and useful. It shall appear in our next; and will Dr. Darlington accept our best thanks for the valuable donation?

The amount of subscription for the Cabinet, is, by the terms, payable in advance; yet some of our subscribers, owing to the difficulty of obtaining small bills for transmission, and other causes, have not yet paid for the 5th volume, which was closed two months ago. We respectfully invite the attention of such to the subject;—an observance of the terms on their part, would enable the publishers to fulfil their own engagements with pleasure to themselves, and, they trust, with advantage to their subscribers. The individual amount is small, and all would doubtless wish it discharged. The aggregate is important to the proprietors. The fifth volume of the Cabinet may now be had, neatly bound and lettered, price $1.25, by application at the office—where also may be obtained complete sets from the commencement, at five dollars, half bound, together with all the standard works on Agriculture, Botany, and their relative branches; Science and the Arts.

Bokhara Clover.—In answer to numerous inquiries, we have to state that a few papers of the seed of this very rapid growing clover are yet for sale at $1 per packet. Apply to Mr. R. Buist, nursery-man and florist, 12th street below Pine, Philad.

The quantity of rain which fell during August (8th month,) was nine inches and one hundred and two thousandths of an inch ..... 9.102 inches.

Pennsylvania Hospital, 9th mo. 1, 1841.


## THE FARMERS' CABINET,

IS PUBLISHED BY

KIMBER & SHARPLESS, No. 50 NORTH FOURTH STREET, PHILADELPHIA.

It is edited by James Pedder, and is issued on the fifteenth of every month, in numbers of 32 octavo pages each. The subjects will be illustrated by engravings, whenever they can be appropriately introduced.

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